CONSTRUCTION NEWS

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CONTENTS.

CONSTRUCTION NEWS:
Railways 297
Electric Railways 297
Light and Power Plants 297
Bridges 298
Buildings 299
Water Supply and Irrigation 300
Sewerage 301
Garbage Disposal 302
Streets and Roads 302
Manufacturing Plants 303
Miscellaneous Contracts 304
Contract Prices 305
U. S. Possessions and Cuba 306
Plans and Specifications on File 307
List of Contracts Pending 307
EXAMINATIONS 306
INDUSTRIAL NOTES 306
PROPOSALS 308

RAILWAYS.

(*Denotes that this work is advertised in Engineering News.)

ARKANSAS.—The Kansas City & Memphis R. R. has been chartered. The capital stock is $6,000,000. Construction work will be started at once. The road is to start at Rogers, Benton County, Ark., with its terminal at Memphis. Branches will extend from the main line to a point in Faulkner and to Little Rock, and from Rogers to Siloam Springs and Eureka Springs, with Wagner, Okla., as the ultimate terminus. The proposed railroad is 358 miles in length.

BALTIMORE & OHIO R. R. CO.—It is reported that the company will shortly ask for bids for the construction of the extension of the Buchanan & Northern R. R., which is to be built from Rivesville, W. Va., near Fairmont, to the Pennsylvania state line. The new line will tap the extensive coal properties of the Little Kanawha Syndicate, which is owned jointly by the Baltimore & Ohio, the Pittsburg & Lake Erie and the Pennsylvania railroads. During the past few months the Baltimore & Ohio has been quietly purchasing the necessary right-of-way for the contemplated extension, and it is stated that more than two-thirds of the right-of-way has already been purchased. By the time that all the bids are in and the contract awarded for the construction of the extension, the remaining right-of-way will have been procured. A. W. Thompson, Baltimore, Md., is Ch. Engr.

BUFFALO CREEK & GAULEY R. R.—Press reports are to the effect that a 90-mile extension is projected from Huttonsville to Widen, W. Va. Guy Bray, Clay, W. Va., is Ch. Engr.

CHICAGO, ROCK ISLAND & PACIFIC R. R. CO.—Press advices state that this company is considering the building of a line from Knowles to Tucumcari, N. M. J. B. Berry, Chicago, Ill., is Ch. Engr.

DENVER, NORTHWESTERN & PACIFIC RY.—A movement is on foot among Denver capitalists to raise $4,200,000 for the construction of a railroad tunnel through the main range of the continental divide on the route of the Moffat Road. As a result of several surveys made by engineers it has been decided that the best location for the eastern portal of the main range tunnel is at a point about three miles west of Tolland, at an elevation of 9,470 ft. above sea level. The western portal of the tunnel would be in the Fraser Valley, about three miles southeast of Vasquez. The elevation of Corona, the present railroad summit, where the Moffat Road crosses the crown of the continental divide, is 11,600 ft. The tunnel will save in elevation 2,130 ft., will cut out all heavy grades and will shorten the main line 16½ miles. The tunnel will be 4.1 miles long. When the Moffat Road is connected with the Denver & Rio Grande Ry. between Orestod and Dotsero, the present railroad route from Salt Lake City to Denver will be shortened about 168 miles. It has also been proposed that this tunnel be built by convict labor and be owned by the state. L. D. Blauvelt, Denver, Colo., is Ch. Engr.

FLORIDA EAST COAST RY.—The contract for the construction of the Kissemme Valley extension has been awarded to the KISSIMME VALLEY CONSTRUCTION CO., Jacksonville, Fla. E. Ben Carter, St. Augustine, Fla., is Supt. M. of W.

MIDLAND CONTINENTAL.—We are informed that this line (in North Dakota) is graded for the first 50 miles between Edgely (on the C., M. & St. P.) and Jamestown (on the Nor. Pacific); and that it is intended to lay rails before next summer. President, Frank K. Bull (J. I. Case Threshing Machine Co.), Racine, Wis.

NEVADA.—The Lida Valley R. R. Co. is arranging to build a railroad into the Lida Valley for the purpose of opening up mines. The main line will be about 25 miles long and near Lida on the Tonopah & Tidewater R. R., it wil branch, one line going to Hornsilver and the other to Lida. The construction will be easy, as there are no great natural obstructions to overcome. A. D. Goodenough, Goldfield, Nev., is Gen. Mgr.

NORTH CAROLINA.—The Laurel River Logging Co. will build 10 miles of railroad from Runnion, Madison County, to the company's timber boundary to the north. W. N. Garrett, Hot Springs, Madison County, N. C., is Engr.

PORTERVILLE, NORTHEASTERN RY. CO.—We are officially advised that the contracts have been let for the construction of about 16 miles of road between Porterville and Springville, Tulare County, Cal., to THE UTAH CONSTRUCTION CO., of Ogden, 520 Phelan Bldg., San Francisco, Cal. F. U. Nofziger, Porterville, Cal., is Pres., and C. S. Freeland, Porterville, Cal., is Ch. Engr.

SOUTH CAROLINA.—The Georgia & Carolina Ry. has been incorporated with a capital of $100,000. The road will be built from Augusta through Edgefield, Saluda, Newberry and Whitmire to Spartanburg. A. W. Jones, Milledgeville, Ga., is Pres., and A. E. Padgett, Edgefield, is Secy.

TEHUANTEPEC NATIONAL RY.—This road is to be strengthened and improved so as to accommodate the constantly increasing traffic that it is handling across the Isthmus. Many of the bridges and culverts are to be removed and replaced with filled-in rock and earthwork. The drainage system along the road is to be enlarged and extended in order to take proper care of the flood of water in time of periodical downpours of rain. The curves are to be lengthened and a general strengthening of the track and roadbed done in order that engines of much heavier type than those now in use may be employed in the traffic. The traffic handled by the road has been fully up to expectations. H. L. Cumming, Rincon Antonio, Oaxaca, Mex., is Ch. Engr.

TEXAS.—The Port Bolivar Iron Ore Ry. Co., which is composed of Santa Fe R. R. interests, has just been organized to construct a railroad from Longview to the iron ore fields near Hughes, Cass County. The particular object of the proposed road is to give a transportation outlet for the iron ore mines that are being developed in that section by Charles M. Schwab. Mr. Schwab entered into a contract some time ago with the Santa Fe for the transportation of a large tonnage of iron ore from the Cass County fields to Port Bolivar, Texas. L. G. Featherston, Galveston, Tex., is Pres.

CUBA.—President Gomez has signed a decree contracting with the Cuban Central Rys. (Ltd.) for the construction of new railways authorized by the laws of July 4 and 20, 1910, and granting the subvention prescribed by the law of July 5, 1906. This was first announced in "Daily Consular and Trade Reports" for Sept. 2. The railway lines concerned are those from Sagua la Grande to Corralillo, by way of Rancho Veloz, and from Cifuentes to La Esperanza, by way of San Diego del Valle.

A bill was introduced in the Chamber of Representatives, under date of Nov. 16, to authorize the executive to contract for the building of a railway from Guantanamo to Baracoa, with application of the subsidy law of July 5, 1906.

ELECTRIC RAILWAYS

(*Denotes that this work is advertised in Engineering News.)

BROOKLYN, N. Y.—The Brooklyn & Jamaica Bay R. R. has applied to the Public Service Commission for a certificate of public convenience and necessity for constructing a 2½-mile electric railway from Liberty Ave. and Montauk Ave., down Montauk Ave. to Railroad Ave. and Old Mill Creek, Jamaica. Horace J. Subers, 25 Broad St., New York, is Pres.

WHITE PLAINS, N. Y.—Westchester Electric Ry. Co., operating in Mt. Vernon, New Rochelle, White Plains, N. Y., with connecting interurban lines, is reported to have decided to build a $200,000 power-house in White Plains, enlarge carbarns there, improve and rebuilt some lines, all with view to standardization.

PHILADELPHIA, PA.—A contract has been awarded by the Holmesburg, Tacony & Frankford Electric Ry. to CHARLES McCAUL & CO. for the construction of an addition to the trolley line's power-house in Tacony.

WILMINGTON, DEL.—Application has been made to the Maryland Public Service Commission for authority to construct a trolley line from Salisbury to Nanticoke Point in Wicomico County, Md., a distance of 30 miles. The estimated cost is about $750,000. The charter under which the road will be built is the Wicomico Electric & Power Co., of Salisbury, capitalized at $200,000.

NEWBERN, N. C.—It is reported construction work will be started within sixty days by the Neuse-Trent Traction Co., Newbern, N. C., on its 4-mile railway in Newbern. This company also expects to purchase power from the city power station. T. A. Colvin, Newbern is Ch. Engr.

HAWKINSVILLE, GA.—Plans are in the course of preparation for the construction of a railway from Ocilla, Rochelle and Fitzgerald to Hawkinsville. J. A. Henderson, Ocilla, Ga., is interested.

MACON, GA.—The Macon Ry. & Light Co. plans to build an extension of its Vineville and South Macon line to Rice's Mill. J. T. Nyhan, Macon, is Gen. Mgr.

JACKSONVILLE, FLA.—The Jacksonville Electric Co. has started work on an extension from Fort Myers to Labelle and Citrus Center. A. K. Todd, 147 Milk St., is Secy.

ST. AUGUSTINE, FLA.—It is reported that plans are being considered by J. J. Brophy, Pittsburg, and associates, for the building of an electric line to connect St. Augustine, Tampa, Kissimmee and Sanford.

NEW ORLEANS, LA.—The New Orleans Ry. & Light Co. is said to be contemplating extending its line from Claiborne to St. Bernard. Joseph H. De Grange, New Orleans, is Vice-Pres. and Secy.

COLUMBUS, OHIO.—The Columbus Connecting Ry. Co., Columbus, was incorporated recently with an authorized capital of $25,000, which will be increased to $6,000,000 for the purpose of constructing a belt line around the city of Columbus. The incorporators are O. E. Gwinn, Charles O. Hunter, F. R. Huntington, Dennis Kelly, Stanley D. Pugh and L. E. Keisewetter. The articles of incorporation provide that the motive power can be either steam or electricity. The proposed route is as follows: Beginning at a point 300 ft. east of the intersection of the Ohio Central R. R. with East Broad St. northwest into Mifflin Township crossing the P. C. C. & St. L. R. R. and the B. & O. R. R., thence northwest into Clinton Township crossing the Olentangy River about 2 miles north of North Columbus, and then to an intersection with the Indianapolis division of the Pennsylvania R. R., thence southwest to an intersection with the Hocking Valley R. R., and back to the point of beginning.

COLUMBUS, OHIO.—The announcement is made that the Ohio Electric Co., operating a number of traction lines in the state of Ohio, will expend $200,000 in improvements on the Springfield-Dayton division next year. A large part of the funds will be used to renew bridges and track. In a number of places sharp curves will be straightened.

LOGANSPORT, IND.—A franchise has been granted by the County Commissioners to the Logansport & Frankfort Traction Co. which proposes to build and operate an interurban line between the two cities. Under the terms of the franchise work on the road must be started by Jan. 1, 1912, and must be completed before January, 1914.

MANITOWOC, WIS.—The organization of a new traction company to open up the region north of Two Rivers is under way. The company, it is said, will be known as the Green Bay, Algoma, Sturgeon Bay & Northern Traction Co. Power for the line will be furnished by the Northern Hydro-Electric Co., which recently completed a large power plant at High Falls, Wis.

DULUTH, MINN.—It is reported that the Duluth St. Ry. Co. plans to construct an extension to its line to New Duluth and Fond du Lac. Herbert Warren, Duluth, is Pres.

MEXICO, MO.—The Mexico, Santa Fe & Perry Traction Co. has commenced the construction of its proposed line from Mexico to Columbia and Fulton. This projected 20-mile electric line will connect Mexico City, Perry, Santa Fe, Hereford, Columbia, Fulton and Mokane. Mathias Crum is Pres.

LOS ANGELES, CAL.—According to press reports the Pacific Electric Ry. is contemplating the electrification of the Southern Pacific tracks from the Southern Pacific Station to Oneonta tower, and there have a double track connect with the inside tracks of the four-track system. Wm. F. Herrin, Flood Bldg., San Francisco, is Vice-Pres.

OGDEN, UTAH.—The Ogden Rapid Transit Co. will extend its line from the Hermitage in Ogden to Huntsville. James A. West, Ogden, is Ch. Engr.

BRANDON, MAN.—A Vancouver syndicate has applied to the Council for a franchise to construct an electric railway. Construction work will commence as soon as the franchise is granted.

OTTAWA, ONT.—An electric railway from Ottawa, Can., to Morrisburg, giving connections with N. Y. C. R. R. and Rutland R. R. by the St. Lawrence & Norwood R. R. via Waddington, N. Y., seems practically assured, the survey having been completed and much stock having been subscribed. Cost of road estimated at $750,000.

BERLIN, ONT.—The Parliament will be applied to for an act to incorporate a railway company to operate under the name of the Imperial Traction Co. with power to lay out lines from Hamilton to Guelph, Berlin, Stratford, St. Marys, London, Ingersoll, Woodstock, Brantford, Hamilton.

FORT WILLIAM, ONT.—Press reports are to the effect that the ratepayers of this place will raise $67,000 toward further extending and improving the street railway.

HAMILTON, ONT.—The Dominion Power & Transmission Company has announced an expenditure of $30,000 for new cars for its suburban lines, to be purchased from the PRESTON CAR & COACH CO.

LIGHT AND POWER PLANTS.

(*Denotes that this work is advertised in Engineering News.)

BOSTON, MASS.—The contract for heating, ventilating and electrical work for Phycopathic Hospital, bids opened on Dec. 15 by Kendall, Taylor & Co., Architects, was awarded to LYNCH & WOODWARD at $34,787. Other bidders were: Albert B. Franklin, $37,225; J. P. Dwyer, $37,277; Bradlee & Chatman, $37,817; Huey Bros., $38,737; C. H. Sanborn, $39,890; J. J. Hurley, $58,990; Ingalls & Kendricken, $62,840; Laskey & McMurrer, $64,577.

BOSTON, MASS.—It is the intention of the City to purchase a lamp equipment to cost $310,000, the lighting of same to be done by contract. L. K. Rourke is Supt. of Streets. This will not interfere with the lighting bids to be opened Dec. 25.

OAKVILLE, CONN.—The contract for lighting the streets of the city has been awarded to the HOUSATONIC POWER CO. The company will furnish 20 c. p. lamps, at $15 per annum.

BROOKLYN, N. Y.—Bids will be received by Henry S. Thompson, Commissioner of Water Supply, Gas and Electricity, until 2 p. m., Dec. 30, for furnishing and delivering 360 lamp-posts, brackets and parts thereof, in the Borough of Brooklyn. Plans and specifications may be obtained at 13 to 21 Park Row, New York.

NATURAL BRIDGE, N. Y.—The St. Lawrence Talc & Asbestos Co., 5 East 42d St., New York City, has awarded the contract to LEONARD GATES, Carthage, for construction of a log crib and concrete dam, about 20 0ft. long, and small brick and concrete power-house with water wheel to develop 180 HP.

NIAGARA FALLS, N. Y.—The Aluminum Co. of America, with plants at Niagara Falls, N. Y.; Quebec, Can.; New Kensington, Pa., and Massina, N. Y., is seeking legislation in U. S. Congress and Canadian Parliament favorable to development of Long Sault River power on a large scale with view to concentrating its industries at Masena.

NEW YORK, N. Y.—Bids will be received by the Commissioner of Water Supply, Gas and Electricity until 2 p. m., Dec. 30, for furnishing and delivering 255 lamp-posts, brackets and parts thereof in the Borough of Manhattan.

NEW YORK, N. Y.—Bids will be received by the Board of Education, Park Ave. and 59th St. until 3.30 p. m., Jan. 9. No. 1. For Item 1, installing heating and ventilating apparatus, and Item 2, installing temperature regulation in new Public School 95, on West Houston and Clarkson Sts., about 125 ft. east of Hudson St., Borough of Manhattan. Plans and specifications may be obtained from C. B. J. Snyder, Board of Education, Park Ave. and 59th St., New York.

NEW YORK, N. Y.—Bids will be received by the Commissioner of Water Supply, Gas and Electricity until 2 p. m., Dec. 30, for furnishing and delivering 255 lamp-posts, brackets and parts thereof in the Borough of Manhattan; also, for furnishing and delivering 160 lamp-posts, brackets and parts thereof, in the Borough of Brooklyn. Henry S. Thompson is Comr.

DARBY, PA.—The contract for the addition to the power plant of the Griswold Worsted Co., this city, has been awarded to JOHN RHOADES, 227 South Fifth St., Darby. The addition will be brick and concrete. Griggs & Holbrook, William St., New York City, are the engineers, and A. Holcroyd, Darby, Pa., is purchasing agent of the Griswold Worsted Co. The contracts for power equipment have not been awarded. Work will be started at once.

YEADON, PA.—A. F. Damon, Darby, Pa., has been selected as engineer to prepare the plans and specifications for the proposed new sewerage and sewerage disposal plant that is to be built here early next spring. Plans will be prepared at once, and the contract awarded within two months. The work will then be started as soon as possible in the spring.

PITTSBURG, PA.—Bonds to the amount of $600,000 have been issued by the Tri-County Natural Gas Co., to be used in constructing necessary pipe lines, compressor station, plant and equipment. The company is capitalized at $1,200,000. J. C. McDowell is Gen. Mgr.

ANNAPOLIS, MD.—The contract has been awarded to the EVANS-ALMIRAL CO., Manhattan, at $90,545, for constructing a power plant in the U. S. Naval Academy, Annapolis, Md.

BELAIR, MD.—The Kenmore Farm Co. contemplates development of water-power for electrical purposes. Harry D. Hanway is interested.

BALTIMORE, MD.—Bids received on Sanitary Contract No. 59, electric wiring at the sewage pumping station, which were opened bythe Board of Awards on Dec. 7, are as follows: Central Electric Co., 217 S. Central Ave., Baltimore, Md., $3,526; Eugene J. Rosenfeld & Co., 10 S. Howard St., Baltimore, Md., $3,958.51; John S. Dobler, 204 N. Calvert St., Baltimore, Md., $4,925; The McCay Engineering Co., 9 East Lexington St., Baltimore, Md., $5,190; Malcolm W. Hill Co., 405 Courtland St., Baltimore, Md., $5,555.

WASHINGTON, D. C.—Bids will be received until Dec. 28 by the War Department, Washington, D. C., for furnishing electrical supplies. Capt. A. S. Cowan is Oisbursing Officer.

WASHINGTON, D. C.—Bids were received as follows on Dec. 13, by the Superintendent of the State, War and Navy Dept. Building, Washington, D. C., for wiring in the building: National Electric Supply Co., $23,336; (A) $5,393; (b) $2,766; L. K. Comstock & Co., 50 Church St., New York, $21,000; (A) $4,500; (B) $1,800; Lord Electric Co., 213 West 40th St., New York, $25,800; (A) $2,884; (B) $1,448; Lathbury D'Olier Co., Philadelphia, $30,470; (A) $2,940; (B) $500; Watson Flagg Engineering Co., New York, $27,780; (A) $2,268; (B) $360; Edward Joy Co., Syracuse, N. Y., $28,496; (A) $3,705; (B) $300; Keller-Pike Co., Philadelphia, $19,900; (A) $2,801; (B) $500.

ABINGDON, VA.—According to press reports the Martha Washington College will erect a power house.

DILLSBORO, N. C.—Charles J. Harris negotiated with C. S. Logan, Waynesville, N. C., for the installation of a plant at Dillsboro to furnish electric power to Dillsboro and Sylvia and operate machinery in Mr. Harris' tannery; about 60 HP. will be furnished by Scott's Creek.

CARTERSVILLE, GA.—The city will install machinery in the electric light plant and supply day current of electricity. The estimated cost, is about $6,000.

COLUMBUS, GA.—The contract has been awarded to DERONDA LEVY, Columbus, Ga., for furnishing machinery and electrical equipment for the manufacturing plant of the Meritas Mills.

DAHLONEGA, GA.—Plans are being considered for the installation of an electric light plant to provide electricity for lighting purposes by the Cedar Mountain Land Co. H. R. Robertson, 727 Candler Bldg., Atlanta, Ga., is Secy.

GULFPORT, MISS.—The Gulfport & Mississippi Coast Traction Co. is considering an extension of its North Gulfport and Twenty-fifth Ave. line to Bayou Banard.

PORT GIBSON, MISS.—Plans for the installation of an electric light plant in the Chamberlain-Hunt Academy with sufficient output to supply 120 lamps are being considered. M. E. Melvin is Pres.

LA ABITA SPRINGS, LA.—The City is negotiating with the Mandeville Electric Lighting Co. for extensions of its electric-lighting system to Abita Springs, a distance of nine miles.

TRENTON, TENN.—The Trenton Electric Light Co. will purchase, improve and operate the electric light plant of Keenan, Wade & Wade.

LIMA, OHIO.—According to press reports the Western Ohio Ry. Co., Celina, has decided to enter the commercial field for the sale of heat, light and power to municipalities along its right-of-way. Work has been started this week in general repairs and additions to the high tension wires. The estimated cost is about $25,000.

Franchises will also be asked in this city, Sidney, Anna, Botkins, Wapakoneta, Cridersville, Bluffton, Celina and small hamlets. It is claimed the company can put itself into a position to furnish service at a lower rate than private concerns and it is now using but 50% of its output from the big $250,000 power station. H. C. Lang, Secy. and Treas., 215 Garfield Bldg., Cleveland, Ohio.

MOORESVILLE, IND.—Harry J. Stoops, Chicago, Ill., is reported to have purchased the Public Service Co. for $19,500. Extensive improvements will be made upon the system.

COLUMBIA CITY, IND.—The City Council will soon ask for bids for the installation of machinery and equipment for the adding of a day current service to the electric light plant. Bids will also be asked for the remodeling and enlarging the plant.

DETROIT, MICH.—Smith, Hinchman & Grylls, Washington Arcade Bldg., have awarded the following contracts for the new boiler house for the lighting commission of the city of Detroit, F. T. Dowler, Secy., 40 Atwater St.: Masonry to BRYANT & DETWILLER, Hammond Bldg.; carpentry to STRELAN & PETT, 700 Mack Ave.

KALAMAZOO, MICH.—J. C. & R. C. Llewellyn, 164 Dearborn St., Chicago, have awarded the heating for the new 6-story and basement fireproof building, for the Arcade Co., John Burke, Mgr., Kalamazoo, Mich.: Heating let to WHEELER & BLANEY CO., 223 N. Burdock St., Kalamazoo, Mich. Cost of building, $75,000.

IRON MOUNTAIN, MICH.—According to press reports L. Sterling and O. C. Davidson are interested in the erection of a hydro-electric plant on Menomine River.

BELLEVILLE, ILL.—The East St. Louis & Suburban Ry. Co. is planning to erect a power-house within a few months, to supplant the storage battery station at Harrison and West Main Sts., Belleville. The site will be near the present site of the car barns on the Rock Road. The estimated cost is $20,000. C. M. Clark, 321 Chestnut St., Philadelphia, Pa., is Pres.

ASHLAND, WIS.—The Ashland Lighting Co., A. E. Appleyard, Mgr., will erect another power dam on the Bad River near Copper Falls.

LA CROSSE, WIS.—Negotiations are being carried on by the "Dan Patch" line of Minneapolis, which operates cars between that city and North Duluth, for the purchase of the Hatfield electric power plant in this city.

MENDOTA, WIS.—The State Board of Control has awarded GEORGE NELSON, Madison, the contract for the construction of the concrete foundation for the new power-house at the Mendota Insane Asylum.

MILWAUKEE, WIS.—The ALLIS-CHALMERS CO. has secured a contract for large hydraulic turbines or water wheels. Two of the machines, each of which will produce 20,400 HP., are to be supplied to the Pacific Coast Power Co. on the White River, about 20 miles from Tacoma, Wash.

STAFFORD, KAN.—Bids will be received until Jan. 3 by N. P. Reid, City Clk., Stafford, for the material and labor necessary to build an electric light plant and waterworks. Plans and specifications may be obtained from the City Clerk.

HORTON, KAN.—The City is contemplating the installation of an electric light plant, and is desirous of learning the approximate cost of installing a plant for a town of 4,000. B. B. Norris is City Clerk.

ST. LAWRENCE, S. DAK.—It is reported that the installation of an electric light plant is under consideration.

RADERSBURG, MONT.—It is reported that the Black Friday Mining Co. has contracted with the WESTERN SUPPLY CO., Butte, Mont., for the installation of a new air compressor and dralling outfit for mine at Radersburg.

WELLSVILLE, MO.—The Wellsville Light, Power & Water Co. has been incorporated and capitalized at $15,000. The incorporators are C. H. Early, J. T. Mitchell, E. R. Barrett and others.

LAMPASAS, TEX.—The Lampasas Light & Power Co. is reported to have been purchased by E. Haby, who will erect a new power station and install additional equipment at an estimated cost of about $15,000.

MARFA, TEX.—The St. Stephen Land Co. is contemplating the erection of a storage reservoir and the installation of irrigating pumping machinery near Marfa.

WICHITA FALLS, TEX.—The Wichita Falls Water & Light Co. is making arrangements to light the downtown district. The street lighting apparatus is being purchased.

KIOWA, OKLA.—It is reported that arrangements are being made and that bids will be received until Jan. 1 for the installation of an electric light plant and a waterworks system. Bonds to the amount of $18,000 have been voted. M. N. Vernon is Pres. of the Board of Trustees.

CADDO, OKLA.—Caddo Power Co. has been incorporated with a capital stock of $6,000 by D. M. Wilson, J. D. Hartzog and P. C. Tarver.

HOQUIAM, WASH.—The contract has been awarded to DAVIS & MILLER, Aberdeen, for a heating plant in the Lumberman's Bank Bldg.

SPOKANE, WASH.—Ed. Donlan, of Nissoula, Mont., Pres. of the Northwestern Development Co., is reported to have stated that the construction work on the dam and power station at Thompson Falls, Mont., will start as early in spring as the weather will permit. The estimated cost is about $1,800,000.

TACOMA, WASH.—The Municipal Commissioners have voted to double size of Nesqually power plant. The estimated cost is as follows: Bridge and pipe line, $44,890; pressure pipe, etc., $116,696; power-house, cranes, $149,875; conduit and reservoir, $292,675; right-of-way for line, $15,000; equipment for power-house, $177,306; transmission line, $90,000; water wheels, governors, $80,000; equipment for substation, $146,853; transmission line, $9,000; water wheels and governors, $6,000; equipment for substation, $7,000.

PORTLAND, ORE.—The Pacific Power & Light Co. will install about 200 miles of gas pipe during the coming year. This company will expen dabout $1,500,000 on various improvements.

SPRINGFIELD, ORE.—The Northwestern Corporation, Eugene, Ore., is said to be contemplating the erection of a substation in Springfield to furnish electrical service to the upper Willamette Valley.

PORTLAND, ORE.—The Pacific Power & Light Co., and the Portland Gas and Coke Co. will spend $2,250,000 for various improvements, according to Guy W. Talbot, president of both companies. Of this sum $750,000 will be used in extending the mains and improving the plant of the Portland Gas & Coke Co. The remaining $1,500,000 will be used in the further development of the Pacific Power & Light Co.'s service along the Columbia and Yakima Rivers in Eastern Washington, making possible the irrigation of a large area.

GRESHAM, ORE.—See item under Water Supply-Irrigation.

STAYTON, ORE.—It is reported that A. L. Shrevo, proprietor of the Stayton Electric Light plant, has just completed a deal for the purchase of a power site three miles up the Santian River from Stayton. The site is capable of generating about 5,000 HP.

LONG BEACH, CAL.—The gas interests at Long Beach have effected a merger, the deal involving $1,000,000 and the result being the formation of the Long Beach Consolidated Gas Co. In it are merged the gas interests heretofore controlled by the Southern California Edison Co. and the Inner Harbor Gas Co. The new corporation has arranged for an issue of $1,000,000 of first mortgage 6% 30-year gold bonds, maturing Nov. 1, 1940.

LOYALTON, CAL.—It is reported that the City Trustees are contemplating the installation of a new lighting system.

PIEDMONT, CAL.—It is reported that H. Craig, Pres. of the Board of Trustees, has taken steps toward the installation of a municipal light plant in this place. It is also proposed to construct a distributing system and purchase energy from a private corporation to operate same.

LOS ANGELES, CAL.—The Los Angeles Gas & Electric Corporation is having plans prepared in its engineering department for extensive improvements to be made to their plant soon. A two-story and basement reinforced-concrete office building, 80 × 200 ft. will be erected at the gas plant at Center and Aliso Sts., for the use of the mechanical department. It may be decided to make the building three stories in height. A reinforced-concrete office building, 30 × 60 ft. and three stories in height, will be erected for the electrical department. In order to keep pace with the rapid growth of the city, the company is having plans prepared for a large steel gas holder to contain 6,000,000 cu. ft.

LONG BEACH, CAL.—The formal issuance of $400,000 worth of bonds recently authorized for the building of the Consolidated gas plant in Long Beach, was made recently at a meeting of the directors, who also authorized the expenditure of $132,000 at once, the balance to be used for future use in additional extensions to the plant.

LONG BEACH, CAL.—The issuance of bonds to the amount of $400,000 recently authorized for the building of the Consolidated gas plant in Long Beach, was made at the meeting of the directors.

OAKLAND, CAL.—Bids received Nov. 28 at the office of Brig.-Gen. Charles E. L. B. Davis, Corps Engrs., U. S. A., 726 Chronicle Bldg., San Francisco, for furnishing and installing electrical machinery on drawbridge across Tidal Canal, Oakland Harbor, are as follows. Pacific Construction Co., 16 California St., San Francisco, $22,800; Fred C. Roberts & Co., 461 Market St., San Francisco, $16,000, and Mervy-Elwell Co., foot of 11th Ave., Oakland, $21,300.

TWIN FALLS, IDAHO.—Governor Brady of the Idaho Consolidated Power Co., has announced that 30,000 additional HP. is to be developed at American Falls during the coming year by the building of a new power house.

HAMILTON, ONT.—The Dominion Power & Transmission Co. have announced that the company will spend about $350,000 in making extensions to its plant. The sum of $100,000 will be spent in erecting and equipping a substation at Cannon and Stirton Sts., adding 13,444 HP.; a new 6,400-KW. generator and accessory equipment costing $200,000 will be installed at the generating station at Power Glen, the order for which, it is reported, has been given to the CANADIAN WESTINGHOUSE CO.

PORCUPINE, ONT.—Press reports state that A. E. Wallberg is constructing on the Metagami River a water-power plant. This plant will furnish power for the Government line which is under contemplation here.

TORONTO, CAN.—The organization of a new company to operate under the name of the Central Canada Power, Ltd., has been announced. The company is capitalized at $10,000,000 to carry on a general hydraulic and electric business throughout Canada. It has interests in Quebec and the Maritime Provinces, and in the West. The incorporators are R. H. Parmenter, W. S. Morlock, A. J. Thompson and N. B. Wormwith, Toronto.

BRIDGES.

(***Denotes that this work is advertised in Engineering News.*)

PORTLAND, ME.—We are officially advised that nothing definite will be done toward the construction of a new bridge between Portland and Knightsville for probably a year. Bion Bradbury, Jr., is Comr. Pub. Wks. Noted on Dec. 15.

BOSTON, MASS.—George W. R. Harriman, Consult, Engr., has prepared plans for the construction of a new permanent bridge, to take the place of the old Chelsea North bridge. Estimated cost, about $5,000,000. The location of the bridge as planned will be about 1,500 ft. west of the present bridge and in line with a continuation of Lexington St., Charlestown, touching on the Chelsea side of the Mystic River at the Marine Hospital grounds.

NEW HAVEN, CONN.—The Park Commissioners, on Dec. 9, appropriated $7,000 for the construction of a new bridge in Edgewood Park.

NAUGATUCK, CONN.—The committee in charge of the John Howard Whittemore Memorial Fund has decided to erect a bridge over the Naugatuck River, to replace the present bridge at Maple St. The new bridge will be a permanent one of concrete and stone, and will cost about $100,000. S. E. Hopkins, Naugatuck, Conn., is Chn. Com. on Design and Location.

SALAMANCA, N. Y.—The citizens have voted to construct a concrete bridge across the Allegheny River at Main St., to replace the present iron structure. Estimated cost, about $70,000.

NEW BRUNSWICK, N. J.—The Board of Chosen Freeholders, New Brunswick, has passed a resolution authorizing the County Collector to issue bonds for $9,000 for repairing the Raritan Landing bridge.

CAMBRIA, PA.—The citizens of Cambria City and Minersville are considering a $40,000 appropriation for the construction of a bridge over Conemaugh River.

SHAMOKIN, PA.—The Grand Jury, Sunbury, Pa., has authorized the County Commissioners to construct a new bridge here at Spurzheim St.

HAZELTON, PA.—The Lehigh Traction Co., Hazelton, it is reported, will construct a bridge over Moyer's Run, on the Evergreen Valley Line. C. B. Houck is Gen. Mgr., Hazelton.

YORK, PA.—The County Commissioners, on Dec. 8 ,decided to issue $30,000 of bonds for rebuilding the College Ave. bridge.

ECONOMY, PA.—The Grand Jury on Dec. 16 approved the construction of a bridge over Big Sewickley Creek, connecting Sewickley Township, Allegheny County, with Economy, Beaver County.

PETERSBURG, VA.—The Street Commissioner has granted permission to the Walnut Hill Corporation to construct a street viaduct extending from Sycamore St. to the Walnut Hill property. The viaduct will be 56 ft. high and 34 ft. wide. Estimated cost, $41,000. R. D. Budd is City Engr.

DANVILLE, VA.—We are officially advised that plans and specifications are being prepared for the construction of a highway bridge over the Dan River. It is planned to award contract next April. J. O. Magruder is City Engr.

GRAFTON, W. VA.—The Baltimore & Ohio R. R. Co., it is reported, will construct a bridge from Bridge to Barrett St., of iron and steel. A. W. Thompson is Ch. Engr., Baltimore, Md.

UFFINGTON, W. VA.—The county is asking for bids for the construction of a new bridge over Booth's Creek here.

DURHAM, N. C.—The contract will soon be awarded by the Commissioners of Durham County for the construction of a concrete bridge across the Eno River.

HARTWELL, GA.—The Hart County Commissioners, Hartwell, and the Anderson County Commissioners, Anderson, S. C., are considering the construction of a bridge across the Savannah River. Estimated cost, $27,000.

JACKSONVILLE, FLA.—We are officially advised that the Florida East Coast Ry. Co. will soon ask for bids for the construction of a Strauss Bascule bridge over St. Johns River, near Cooks Ferry, Volusia County, Fla. E. Ben Carter is Supt. M. of W., St. Augustine, Fla.

ANNISTON, ALA.—The County Commissioners have awarded the contract for the construction of a concrete bridge over the Courthouse Creek to W. F. MORRIS.

BIRMINGHAM, ALA.—The city and the railroad companies, including the Southern Ry., D. W. Lum, Ch. Engr., Washington, D. C., it is stated, have come to an agreement in regard to the construction of viaducts. The work will begin at once upon the viaduct of First Ave. The city will pay for the construction of approaches to the viaduct and will maintain roadways. Estimated cost to the city, $125,000; railroad companies' share, $1,000,000.

ANNISTON, ALA.—The Calhoun County Commissioners have awarded the contract to W. F. MORRIS, Anniston, for the construction of a concrete bridge over Courthouse Creek.

HOUMA, LA.—Terrebonne parish will construct an iron bridge across Bayou Terrebonne. The bridge will have a 40-ft. span in the clear by 14 ft. J. C. Dupont is Pres. Police Jury.

COVINGTON, KY.—Plans have been accepted by the city for the construction of the new Willow St. viaduct, and instructions have been given to the City Engineer and the Railroad and Bridge Committee to prepare the necessary ordinance for the construction of the structure. Estimated cost, $20,000.

ASHLAND, OHIO.—Bids will be received by the Board of County Commissioners of Ashland County, Ashland, until noon, Jan. 2, for furnishing all the necessary tools, labor and materials for the construction of the Race St. arch. Bids will be received for (1) for the construction of the arch complete in place, (2) for the backfill, complete, or (3) for the construction of the arch and backfill complete.

ZANESVILLE, OHIO.—Bids will be received until noon, Dec. 27, by the County Commissioners, Zanesville, for constructing and repairing the substructure of the Fifth St. bridge. H. A. Buerhaus is County Audr.

CLEVELAND, OHIO.—We are officially advised that the contract has been awarded to the ADVANCE CONSTRUCTION CO. by the Cuyahoga County Commissioners for planking the Brooklyn-Brighton viaduct, Brooklyn Township. Frank R. Lander is County Engr.

INDIANAPOLIS, IND.—The Commissioners of Marion County will receive bids until 10 a. m., Dec. 30, for the construction of a bridge over Leick Creek, in Warren Township. Albert Sahm is County Audr.

*PEORIA, ILL.—Bids will be received by George F. Simmons, Comr. Pub. Wks., until 8 p. m., Dec. 30, for building a bridge across the Illinois River at Bridge St., and for the removal of piers, piling, an old wooden bridge and the debris of a fallen reinforced concrete bridge, from the site of the new bridge.

PROPHETSTOWN, ILL.—Plans for the erection of a bridge by the Sterling-Moline Traction Co., Sterling, across Rock River at Prophetstown, have been prepared. Estimated cost, $55,000. The bridge will rest on concrete piers, and the spans will be 100 ft. long. There will be five spans.

MILWAUKEE, WIS.—L. J. Klug, Supt. Bridge. Construction, is preparing plans for the construction of a new bridge to be built over the Milwaukee River at Oneida St. It will be of the 1-leaf type, giving a channel 80 ft. wide. The roadway will be 40 ft. wide, with two sidewalks 12 ft. wide and automatic safety gate at the open end. Estimated cost, $125,000.

MARSHALLTOWN, IOWA.—Bids will be received until Jan. 4 by the County Auditor for constructing three reinforced concrete bridges.

NEW HAMPTON, IOWA.—Bids will be received until Jan. 5 by the Board of Supervisors, New Hampton, for constructing several reinforced concrete bridges.

MANKATO, MINN.—A resolution has been passed by the Blue Earth County Board, Mankato, for the acceptance of the proposition of the Chicago, Milwaukee & St. Paul Ry. Co. to pay one-third of the cost of the construction of an overhead bridge near the Mitchell Crossing, provided the State Highway Commission and private subscription provides the necessary two-thirds.

LEAVENWORTH, KAN.—H. C. Perkins, Deputy County Surv., has estimated cost of necessary bridge repairing and construction at $150,000.

Four bridge contracts were let by the County Commissioners on Dec. 5. Two are located in High Prairie Township and two in Stranger Township. J. W. ORR was given the contract for bridges Nos. 285 and 276. A contract for building the Fulcher Bridge was awarded to the LEAVENWORTH BRIDGE CO., and J. B. TIERNY secured the contract for the Wheat Bridge.

GENEVA, NEB.—Bids will be received by the Board of Supervisors of Fillmore County, at the office of Uriah F. Stanard, County Clk., until noon, Jan. 10, for the construction of bridge fills and grading in the county for the year 1911.

DRAYTON, N. DAK.—The County Commissioners, Pembina, it is reported, have decided to construct a bridge over the Red River here. Estimated cost, about $50,000.

WESSINGTON SPRINGS, S. DAK.—Bids will be received until Jan. 7 by the County Commissioners, Wessington Springs for furnishing the material and constructing eight combination steel and concrete bridges. H. O. Refvem is County Audr.

KANSAS CITY, MO.—Plans are being prepared by Waddell & Harrington, Kansas City, for the construction of a viaduct on Twelfth St. Estimated cost, about $1,400,000. L. R. Ash is City Engr. Noted on Dec. 15.

WARRENSBURG, MO.—The County Court of Johnson County, on Dec. 12, awarded the contract to the MIDLAND BRIDGE CO., Kansas City, for the construction of 30 new steel bridges, at $16,232. Fifteen bridges are to be built with concrete floors and 15 with wooden floors. There were 15 bidders.

DENVER, COLO.—Preliminary surveys are being made for the Board of Public Works for the construction of a viaduct on West Colfax Ave.

MEXICO, MO.—Bids will be received by the Board of Commissioners of Audrain County until Jan. 2 for the construction of a 126-ft. span steel bridge, with concrete abutments and wood floors. E. H. Carter is County Clk.; J. J. Wakefield is County Engr.

HUNTSVILLE, MO.—Bids will be received by the Board of Commissioners of Randolph County in February for the construction of about nine steel bridges. S. T. McDonald is County Engr, Moberly, Mo.

DALLAS, TEX.—Five bids for the construction of the Oak Cliff terminal of the Dallas-Oak Cliff viaduct were received by the Commissioners' Court on Dec. 10. The contract to be let is for the construction of the approach on the Oak Cliff side of the viaduct, and consists of two laterals to the main approach, one about 700 ft. long and the other about 600 ft., leading into Marsalis and Lancaster Ave., respectively. The bids as submitted consist of handling about 50,000 yds. of dirt, the building of about 300 yds. of concrete retaining walls and the furnishing of all material for the work, including 24,000 lbs. of steel, 400 yds. of loose rock and 800 yds. of solid rock. The cement is to be paid for by the county. The bids follow: Fred. A. Jones & Co., $19,920; Dennis Fegin, $16,340; H. H. Yorty, $15,970; Larkin & Good, $20,160; H. Cullom, $20,340.

HASKELL, OKLA.—The Board of County Commissioners, Muskogee, on Dec. 6, approved the plans and specifications for the proposed bridge over the Arkansas River, Haskell, designed to open up trade between the farmers of Choska bottoms and merchants and produce buyers on the south side of the river. Estimated cost, $55,000. The bridge will have eleven spans of 158 ft. in length, on 160-ft. centers.. It will rest on concrete piers.

SEATTLE, WASH.—The engineering department of the Oregon & Washington R. R. Co. has awarded general contract for the erection of the Fourth Ave. viaduct to the BUTLER CONSTRUCTION CO., Crary Bldg. Estimated cost, $150,000. The contract for 1,700 piles was awarded to the RAYMOND CONCRETE PILE CO., Portland. The bridge will be about 1,200 ft. long, with a concrete approach of 200 ft., and will be erected for the Oregon & Washington and the Great Northern railroads. About 12,000 yds. of concrete will be used. The BUTLER CONSTRUCTION CO. has also been awarded the contract for the erection of a timber bridge for the Oregon & Washington R. R. Co. over Black River.

BELLINGHAM, WASH.—An election will be held to vote on the question of constructing a bridge over Whatcom Creek. Estimated cost, $15,000. H. A. Whitney is City Engr.

CORVALLIS, ORE. — Plans and specifications of the County Court, for the construction of the proposed bridge across the Willamette River here, have been submitted to the War Department of the United States for approval. Estimated cost, about $55,000.

RIPON, CAL. — The contract has been awarded to MORIARITY & PERKINS for the construction of a large reinforced concrete railroad bridge over the Stanislaus River, near Ripon by the San Joaquin Valley Electric R. R. Co., at $27,000. The plans for the structure were prepared by Haviland & Tibbets, Consult. Engrs.

STOCKTON, CAL.—Bids will be received by Eugene D. Graham, Clk., of Supervisors, until 10 a. m., Dec. 24, for the construction of three trestle bridges with concrete abutments and piers on the Cogswellt Road, north from the railroad station "Peters" and about two miles distant from the same.

PASO ROBLES, CAL.—Bids are asked by the board of supervisors of San Luis Obispo County, until 10 a. m., Jan. 3, for the construction of a steel girder bridge over the Huer Huero Creek on the Paso Robles and Creston Public Road about eleven miles from the Southern Pacific Ry. H. H. Carpenter, is Clk., San Luis Obispo, Cal.

SUISUN, CAL.—Bids will be received by G. G. Halliday, Clk., Bd. of Supervisors, Fairfield, Cal., until 11 a. m., Jan. 3, for the construction of a reinforced-concrete arch bridge to be built across Suisun Creek in Suisun Valley, at the McWilliams ranch road Dist. 3, Suisun Township.

SAN JOSE, CAL.—The following bids have been received by the Board of Supervisors for constructing a concrete bridge over Los Gatos Creek, at Lincoln Ave., 44-ft. span, with 25-ft. roadway: (a) Concrete rail over bridge; (b) iron rail over bridge: John McReynolds, (a) $4,120, (b) $3,979; John Doyle, (a) $4,050, (b) $4,850; J. W. Williams, (a) $5,546; Nott & Monzinger, (a) $5,775; L. M. Scott, (a) $4,750, (b) $4,700.

SAN DIEGO, CAL. — Bids have been received as follows by the Board of Supervisors for the construction of bridges: Santa Margarita River: C. Steffgen, $7,940; Knight & Hyde, $7,765; Gallagher Construction Co., $9,995; Mercereau Bridge & Construction Co., $9,100; Young Construction Co., $10,250. Los Flores Creek: C. Steffgen, $3,325; Knight & Hyde, $3,352; Gallagher Construction Co., $4,400; Mercereau Bridge & Construction Co., $3,600; Young Construction Co., $4,300. San Onofro Creek: C. Steffgen, $6,310; Knight & Hyde, $6,016; Gallagher Construction Co., $7,682; Mercereau Bridge & Construction Co., $7,000; Young Construction Co., $8,220. San Mateo Creek: C. Steffgen, $7,140; Knight & Hyde, $6,939; Gallagher Construction Co., $8,841; Mercereau Bridge & Construction Co., $7,800; Young Construction Co., $8,900.

PASADENA, CAL.—Williams & Nishkian, Chamber of Commerce Bldg., Pasadena, are preparing plans for the construction of a reinforced concrete bridge to be built in Arroyo Park for the Arroyo Park Corporation, Frank H. Long, Secy. The bridge will be between 350 and 400 ft. in length, 50 ft. high, and 30 ft. wide. There will be two cantilever sidewalks. In design it will be what is known as column and girder construction, with deformed bar longitudinal reinforcement. The roadway will be surfaced with asphalt. There will be an iron railing, with reinforced concrete pedestals and lampposts. The plans also provide for a reinforced concrete retaining wall. Plans will be ready for bids soon. Estimated cost, $20,000.

MADERA, CAL.—Bids for constructing the bridge across the Cottonwood Creek have been received by the Supervisors as follows: Healey-Tibbetts Co., $7,200; Cotton Bros. & Co., $10,297; Western Bridge & Construction Co., $10,870; Hyde, Harjes & Co., $10,500; Oakland Bridge Co., $8,100; John Hoffman, $9,000; PACIFIC CONSTRUCTION CO., 18 California St., San Francisco, Cal., $8,200 (awarded contract).

CALGARY, ALTA.—The contract has been awarded to the PARSONS CONSTRUCTION CO. for constructing an overhead bridge here, at $35,000.

PRINCE RUPERT, B. C.—Bids will be received by Alexander Johnston, Deputy Minister of Marine and Fisheries, Ottawa, Ont., until noon, Jan. 3, for a timber approach trestle.

BUILDINGS.

(*Denotes that this work is advertised in Engineering News.)

FALL RIVER, MASS.—We are officially advised that plans have been completed and bids will be received about Jan. 15, for the construction of a technical high school for the city. It will be a 4-story structure, 158 × 168 ft., partly fireproof, of brick and stone construction. Corbett & Higgins, 70 Bedford St., are the Archs. The estimated cost of the building is $200,000 and equipment, $25,000.

SPRINGFIELD, MASS.—A permit has been granted to the Springfield Theatre Co., to erect a theater, 77 × 147 ft., and 80 ft. high, at East Court and Dwight Sts. It will be of brick and terra cotta and will have a seating capacity of 2,500. Edward L. Tilton is the Arch. Cost, $125,000.

NEW YORK, N. Y.—Plans have been filed for a 6-story store and office building at the southwest corner of the Bowery and Delancey St., with a frontage of 11.5 ft. on the Bowery and 98.2 ft. on the street. The building will have a facade of brick, terra cotta, limestone, and sheet metal, and is estimated to cost $40,000. Conogiane Bros., 147 Delancy St., are the owners, and C. Lowinsch, 18 East 42d St., Archs.

NEW YORK, N. Y.—An 8-story brick warehouse, 200 × 204 × 200 × 192 ft., is to be erected on the block bounded by Washington, Barrow, Greenwich and Norton Sts., by the St. John's Park Realty Co., 149 Broadway. W. H. Paine, 55 West 105th St., is the Arch. Estimated cost, $900,000.

George Backer, 1182 Broadway, and Arnstein & Levy, have purchased property at the northwest corner of 33d St. and Madison Ave., which is 49.5 × 100 ft. It is their intention to construct a 16-story business building to cost $850,000, it is reported.

NEW YORK, N. Y.—Bids will received by the Police Department, until 10 a. m., Dec. 28, for furnishing all the labor and materials necessary or required in making and completing general repairs and improvements at the Fifth, Sixth, Seventh, Ninth, 12th, 14th, 21st, 22d, 26th, 28th, 29th, 31st, 39th, 40th, and 43d Precinct Station Houses, and 300 Mulberry St., in the Boro. of Manhattan; the 63d 65th, 66th, 68th, 74th and 79th Precinct Station Houses, in the Boro. of the Bronx; the 99th Precinct Station House, in the Boro. of Richmond; the 143d, 144th, 147th, 158th, 159th, 161st, 165th and 171st Precinct Station Houses in the Boro. of Brooklyn; the 274th, 275th and 278th Precinct Station Houses, in the Boro. of Queens. James C. Cropsey is Comr.

Plans have been filed for an 8-story brick loft, 56.3 × 90 ft., on the south side of 33d St., 212.6 ft. west of Ninth Ave. The owner is the 416 West 33d St. Realty Co., 160 Broadway. J. Woolley is the Arch. Estimated cost, $130,000.

A plot, 204.4 × 60 ft., on the west side of Madison Ave., between 82d and 83d Sts., has been purchased by the Princeton Construction Co., 220 Broadway, of which Isaac Polstein is Pres. A 10-story apartment house is to be erected on the site.

Plans are being prepared by Buchman & Fox, Archs., 11 East 59th St., for a 22-story store and loft building for Edward W. Browning, on property recently purchased at 141 to 145 West 36th St. The plot is 60 × 100 ft.

Plans have been filed with Rudolph P. Miller, Supt. of Buildings, for the erection of a 5-story, fireproof headquarters and stable for Traffic Squads B and C, on the north side of 30th St., 275 east of Seventh Ave. The building will be Colonial in design, with a facade of brick, and will have a frontage of 76 ft. and a deuth of 88 ft. It has been estimated to cost $190,000 by Robinson & Knust, Archs., 105 West 40th St.

A syndicate, headed by George H. Barrett, has purchased property at the southwest corner of Central Park West and 62d St., and plans to construct a 13-story apartment house. Plans were prepared by Charles W. Buckham, Arch., 307 Fifth Ave. The WELLS BROS. CO., 366 Fifth Ave., have the general contract. The total cost is estimated at $1,000,000.

The bids received by the State Commission in Lunacy, on Dec. 14, for alterations to the main building at the Long Island State Hospital, Flatbush, including construction, plumbing and electric work, were: John R. Sheehan & Co., New York, $77,000; Concord Construction Co., New York, $73,368; Thomas McKeowan, Inc., New York, $93,000; W. B. Armstrong, Albany, $84,597; Charles Willie, New York, $81,507; D. J. Ryan, Brooklyn, $79,755.

YONKERS, N. Y.—The Board of Education has approved plans drawn by its Architect, C. C. Chipman, for a trades school, the cost not to exceed $60,000, and voted to advertise for bids for its construction. It also voted in favor of additions to three public schools, and ordered plans drawn. They will have an addition of four rooms at school No. 8, three at school No. 13, and six at school No. 5. A decision was reached to build a school in Nepera Park, and a committee was instructed to seek and report on a site. It was voted to advertise for bids for fire-escapes on school No. 11. Charles P. Easton is Pres., and John H. Claxton, Secy, of the Board.

*ALBANY, N. Y.—Bids are asked by the Secretary of the Trustees of Public Buildings, Capitol, until noon, Jan. 24, for the interior decoration, etc., of the New York State Educational Bldg., situated on the north side of Washington Ave. Palmer & Hornbostel, 63 William St., New York, are the Archs.

*WINGDALE, N. Y.—The following bids were received on Dec. 15, by the Commission on New Prisons, Capitol, Albany, for constructing a prison here to take the place of the present Sing Sing prison. The P. J. Carlin Construction Co., 16 East 23d St., New York, submitted the lowest bid, $2,984,000, for the entire prison, and $698,000 for deductions as provided in the specifications, which eliminated a group of buildings, including the warden's house, chapel, recreation building, south industrial shop, storehouse and condemned and punishment cells. The company agrees to complete the contract by Aug. 30, 1913. The other bidders were: John T. Brady & Co., New York, $3,447,047; deductions, $645,110; complete work in two years and six months. The Hudson Valley Construction Co., of Troy, $3,340,126; deductions, $646,128; complete work in two years and six months. The R. T. Ford Co., Rochester, $3,670,000; deductions, $700,000; complete work by Nov. 1, 1913. Thomas J. Dwyer, New York, $4,100,000; deductions, $491,000; complete work Nov. 1, 1913.

CAMDEN, N. J.—The contract to erect a municipal hospital has been awarded by the City Council to JOHN A. CARTER & CO., Heed Bldg., Philadelphia, Pa. The estimated cost, including furnishings, etc., is $41,000.

PHILADELPHIA, PA.—J. Fred Zimmerman, Sr., of the theatrical firm of Nixon & Zimmerman, has purchased, for $45,000, the Kitchenman residence, at the southeast corner of Eleventh St. and Lehigh Ave., which he will immediately demolish and erect on the site a theater, to be designed by A. E. Westover, Arch, Keith Bldg. The residence occupies a lot 90 × 200 ft., extending to Oakdale St. In addition to the theater, it is planned to erect an office building fronting on Lehigh Ave. The building will cost $200,000.

The contract to erect a 7-story garage, for the Packard Motor Car Co., has been awarded to CRAMP & CO., Commonwealth Bldg. It will be a fireproof structure, measuring 72 × 100 ft. Estimated cost, $300,000.

A plot, consisting of 13.3 acres of land in the 38th Ward, has been purchased by Frank D. Williams, builder, 129 West Mount Pleasant St. It is his intention to build about 400 residences. The project will represent an expenditure of approximately $2,000,000.

A permit has been issued to WILLIAM C. SMITH, 61st and Chestnut Sts., for constructing twelve 3-story stores and flats, 16 × 70.6 ft. each, at from 6034 to 6056 Market St. Cost, $72,000. E. Allen Wilson is Arch.

The special Committee on District High Schools, appointed by the Board of Education, recently decided to build two separate high schools in West Philadelphia, one for girls and one for boys, on the lot at 47th and Walnut Sts. Each of the schools will accommodate 1,200 pupils, and they will have a common lighting and mechanical plant. William T. Tilden, Thomas Shallcross, and others are members of the committee. The total cost is estimated at $950,000.

F. L. Michaelson, 59th and Chestnut Sts., will erect twenty 2-story houses, 16 × 46 ft. each, on Rosehill St., south of Indiana Ave., to cost $42,000.

Quinto & Greenspan will erect 48 2-story buildings on 23d St., between Cambria St. and Indiana Ave., to cost $150,000.

The Christ Church Corporation will shortly erect a parish building, to cost $100,000, adjoining the old Christ Church, on Second St., above Market St. It will be of fireproof material. Ralph E. White is Arch.

PHOENIXVILLE, PA.—The Board of Education plans to construct a high school building, 126 × 78 ft., in 1911. It will contain 23 rooms, and will cost about $70,000.

ASHLAND, PA.—Henry Dagit, Arch., 411 Walnut St., Philadelphia, is preparing plans for a parochial school to be built here, in the spring, for St. Joseph's Roman Catholic Church.

PHILADELPHIA, PA.—The John Hancock Realty Co., Real Estate Trust Bldg., this city, is asking for bids on all sub-contracts for the apartment building to be built at Broad and Venango Sts. The cost of the building will be about $90,000, exclusive of interior furnishing. It will be four stories in height, 40 × 108 ft., of brick, stone and terra cotta. Henry J. Blauvelt, Mariner & Merchants Bldg., is the Arch.

TYRONE, PA.—The contract for building the high school here has been awarded to P. W. FINN, of Altoona, at about $43,000, which does not include any of the interior equipment, power plant, etc. These contracts will be awarded later as the work progresses. Scholler & Hersch, Altoona Trust Bldg., Altoona, are the Archs., and W. C. Van Scoyo, is Secy., of the Tyrone School Bd.

WILMINGTON, DEL.—Frank Miles Day, Arch., 925 Chestnut St., Philadelphia, Pa., is preparing plans for a museum to be erected in Wilmington for the Historical Society of Delaware. It will be a brick and stone fireproof structure and will cost about $50,000.

BALTIMORE, MD.—An apartment house to cost about $100,000 is to be built on the Southwest corner of University Parkway and Wyman Park by the Wentworth Apartment Co., of which J. G. Valient is Pres. It will stand on a lot 112 × 219 ft. and will be five stories high. According to the plans being prepared by Glidden and Friz, Archs., Glenn Bldg., the structure will be patterned after the Tudor Gothic style of architecture and will contain 26 apartments. It will be of red brick and terra cotta with slate roof.

BALTIMORE, MD.—The contract for the erection of the 5-story warehouse and showrooms for Hecht Bros. in West German St., has been awarded to MONMONNIER & SORRELL, and work of construction will begin. The drawings, which have been finished by Frank & Kavanaugh, 328 North Charles St., call for a structure of brick, stone and concrete, with structural iron framework and steel girders. The roofing will be slag and the foundation reinforced concrete. Electric elevators and lights, with gas auxiliary, will be installed. The cost will be $50,000.

BALTIMORE, MD.—Plans have been completed by John R. Forsythe, Arch., 232 St. Paul St., for twelve houses, to be built by A. C. Doyle, St. Paul and Saratoga Sts. They will be between 30th and 31st Sts. Each will be three stories high, of pressed brick, with stone trimmings. The interiors will be of hardwood. The aggregate cost will be about $60,000.

The Coca-Cola Co. plans the erection of a 6-story warehouse and factory at Pratt and Concord Sts. Asa G. Candler is Pres. Estimated cost, $500,000.

Plans are being prepared by F. E. Beall, Arch., 213 St. Paul St., for the construction of 20 houses, 15 × 45 ft., to be erected by Thomas A. Disney. The cost will be about $40,000.

Bids will be received about Jan. 1, by Prof. John C. Hemmeter, M.D., University of Maryland, for the erection of a 2-story residence, 52 × 54 ft. It will be of pressed brick and granite. Robert C. Ullrich, Gunther Bldg., is the Arch. The cost, including equipment, will be $41,000.

The Cosmopolitan Theater Co. will erect a moving-picture theater on Baltimore St., near Greene St. J. E. Kubits, 422 Hickory Ave., is the Arch. The proposed structure will be of brick construction, one story in height, and will be 20 × 120 ft. The facade is to be of Colonial brick and richly ornamented, while the plans for the interior construction call for an auditorium finished in hardwood, tile and onyx. Cost, $40,000.

TAKOMA PARK (Washington post-office), D. C.—Bids were received as follows, on Dec. 15, by the Commissioners of the District of Columbia, for the construction of a branch public library at Takoma Park: Thomas H. Melton, $41,500; Upton Smoot Co., $39,982; Allen F. Howinson, $40,230; Randolph H. Jennings & Co., $43,987; Skinker & Garrett, $42,973; Hoge & Luebkert Co., $41,742; Boyle-Robertson Co., $39,943; A. S. Baird, $51,900; Davis Construction Co., $38,872; W. H. McCray, $44,444; George E. Wyne, $39,500; Burgess & Parsons, $42,000; W. E. Mooney, $48,735.

HUNTINGTON, W. VA. — W. B. Smith, Building Inspector, has completed plans for a municipal emergency hospital to be erected by this city.

WHEELING, W. VA.—E. B. Franzheim, Arch., is completing plans for a 7-story apartment house, to be erected on the National pike in the suburban district of the city, at a cost of about $80,000. The building is to be of fireproof construction and 80 × 100 ft., with 28 apartments.

DURHAM, N. C.—As a result of an additional gift of $100,000 by Benjamin Duke, the old Washington Duke building, one of the first Duke donations to Trinity College, will be torn down and on its site will be erected a dormitory of 60 rooms. Later, an administrative building will be erected. John C. Kilgo, D.D., A.M., is Pres.

MACON, GA.—A hotel, to cost $500,000, is to be erected here by N. M. Block, it is stated.

ATLANTA, GA.—A 24-story office building is contemplated at the northeast corner of Forsyth and Poplar Sts. The Forsyth Improvement Co. has been organized to carry on the work. C. W. McClure and his associates, C. A. Horn, J. J. McLendon, E. S. Sutherland, and Linton Hopkins, are the promoters. Estimated cost, $250,000.

JACKSONVILLE, FLA.—Rutledge Holmes, Arch., 117 Laura St., is preparing plans for a 5-story building to be erected on the north side of Bay St., west of Johnson St., by Solomon S. Shad, liquor dealer. The structure will be of reinforced concrete construction.

*MONTGOMERY, ALA.—The only bid received on Dec. 15 by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of an extension to the post-office at Montgomery, was that submitted by Algernon Blair, Montgomery, at $9,824.

COLUMBUS, OHIO.—The Central Ohio Land Co., of Columbus, has been incorporated with an authorized capital of $200,000 for the purpose of erecting a hotel at Fifth and Long Sts. A site has been secured valued at $40,000. Officers of the company which will construct the edifice are: Daniel J. Ryan, Pres.; Charles S. Kurtz, Vice-Pres.; A. O. Glock, Treas.; William L. Van Sickle, Secy., and James H. Butler, Gen. Mgr.

POMEROY, OHIO.—The bids received on Dec. 7, for the construction of the O. N. Guard Armory here, have been rejected, as being excessive. Howard & Merriam, Archs., Capitol Trust Bldg., Columbus, will revise the plans.

POWELL, OHIO.—Plans for a school building have been completed by C. L. Inscho, Arch., of Columbus, and the Board of Educa-

tion announces that bids for the construction of the building will be received until Dec. 24.

BELLEFONTAINE, OHIO.—Bids will be received by Robert C. Gotwald, Arch., Cotwald Bldg., Springfield, until Dec. 28, for the construction of a high school building at Bellefontaine.

EAST YOUNGSTOWN, OHIO.—Bids will be received until noon, Jan. 9, by the City Council, for constructing a city building. R. F. Thompson, Realty Trust Bldg., Youngstown, is Arch., and P. J. Carney, Clk.

LONDON, OHIO.—The citizens recently voted on the question of issuing bonds to erect a high school building, to cost $80,000. The proposition carried.

YOUNGSTOWN, OHIO.—The Youngstown Hotel Co. has been organized for the building of a $75,000 hotel in this city. The officers are: J. G. Butler, Jr., Pres.; George D. Wick, Vice-Pres.; W. B. Hall, Secy. and Treas.

ELKHART, IND.—The School Board has awarded a contract for the erection of a high school building to MOYER & HELPIN, of this place, at $83,733. This does not include the auditorium nor any of the interior work. Bids will be asked later for this work.

EVANSVILLE, IND.—The Trustees for the Southern Indiana Hospital for the Insane, have awarded a contract for the construction of a wing to the hospital, to the INTERNATIONAL STEEL CONSTRUCTION CO., of this city, at $59,000.

FORT WAYNE, IND.—The Pennsylvania R. R. Co. has accepted plans for the construction of a passenger station on Baker St. The building will be 196 × 108 ft., and an elevation at the dome of more than 50 ft. It is to be constructed of brick, stone and terra cotta, two stories high. The train shed will shelter seven trains of 15 cars each. All baggage will be handled through subways. It is understood that the contract will be let about Jan. 1.

INDIANAPOLIS, IND.—Plans are being prepared for the erection of a 2-story brick office building on Meridian St., between New York and Vermont Sts., by the Millers' Mutual Fire Insurance Co. The framework will be of steel. W. E. Stevenson & Co., 126 East Market St., will receive the bids and award the contract.

LAPORTE, IND.—George H. Irving and William B. Burch, of Chicago, together with local capitalists, are promoting a plan to build a hotel, to cost $80,000.

CADILLAC, MICH.—Perkins & Hamilton, 132 Clark St., Chicago, have prepared plans for a brick high school for the Board of Education of Cadillac, including a steam-heating plant. Cost, $75,000.

DETROIT, MICH.—Albert Kahn and E. Wilby, Trussed Concrete Bldg., Detroit, have been commissioned by the King Amusement Co., care of the Architects, to prepare plans for a theater, 60 ft. high, 60 × 100 ft., to be of reinforced concrete construction, structural iron, with composition roof, hardwood finish floors, and electric fixtures. Cost, $40,000.

Donaldson & Meier, Archs., Ammerman, McColl & Anderson, Engrs., Penobscot Bldg., are ready to receive estimates on the proposed Peninsular Bank Building, 40 × 130 ft., six stories and basement. J. H. Johnson, 40 Fort St., West, is Pres. Cost, $500,000.

GRAND RAPIDS, MICH.—Pollmar & Ropes, Archs., Cleveland Bldg., Detroit, are receiving estimates on the proposed church house for the First Presbyterian Church, Rev. John Boyd, Pastor, Woodward Ave. and Edmond Pl. The building to be of brick and steel, three stories and basement, 55 × 100 ft. Cost, $40,000.

MANISTEE, MICH.—Plans are being prepared by Osgood & Osgood, Archs., Widdicourt Bldg., Grand Rapids, for the erection of a Masonic Temple in Manistee. It will be a 3-story structure, 65 × 90 ft. Bids will be received about Feb. 1. Estimated cost, including equipment, $50,000.

BATTLE CREEK, MICH.—Robert E. Seyfarth, 207 La Salle St., Chicago, Ill., is completing plans for a 3-story and basement fireproof building, 60 × 130 ft.; to be constructed of stone, reinforced-concrete and steel, for the Battle Creek Inquirer, care of C. L. Post. Cost, $40,000.

DETROIT, MICH.—George D. Mason, 80 Griswold St., will receive bids soon on the $60,000 addition to the general Hospital at Pingree Ave. and Hamilton Boulevard, for the Health Board of the City of Detroit. Guy L. Kiefer, 233 St. Antoine St., is Comr.

Malcomson & Higgenbotham, Moffat Bldg., have let the following contract for the $100,000 addition to Grace Hospital, Dr. W. L. Babcock, Supt., Willis and John R. Sts.: General contract to ALBERT A. ALBRECHT, Penobscot Bldg.; carpentry to HARCUS & CO., 774 Russell St.; heating to ERNST BROS., 414 Woodward Ave., all of Detroit.

DETROIT, MICH.—Albert Kahn & E. Wilby, Trussed Concrete Bldg., Detroit, have let the following contracts for the 2-story and basement office building, 297 × 62 ft., for the Ford Motor Car Co., B. T. Traves, Gen. Mgr., 268 Jefferson Ave.: Masonry to A. J. SMITH CONSTRUCTION CO., Hammond Bldg.; carpentry and painting to VINTON & CO., 120 Woodbridge St.; heating and fan ventilating system to NORRIS & MILLER, 252 Randolph St. Cost, $45,000.

Rogers & MacFarlane, Penobscot Bldg., have let the following contracts for the 6-story building for the Whitney Realty Co., Ford Bldg.: Structural iron work to WHITEHEAD & KALES, Beecher Ave. and Michigan Central R. R.; masonry to A. A. ALBRECHT, Penobscot Bldg.; carpentry to HOHN WHITTAKER, 51 Church St.; composition roofing to R. HULTON & CO., 116 Front St.; plumbing to GOODALL & CO., 443 Howard St.; painting to BREDE & SCHOETER, 50 Adams Ave. West. Cost, $50,000. It has been leased by the L. B. King Co., 103 Woodward Ave.

CHICAGO, ILL.—A permit for the erection of the proposed North American Building, at the northwest corner of State and Monroe Sts., has been granted. It will be 19 stories high, 96 × 120 ft., of Gothic design. Louis M. Stumer, 51 Jackson Boulevard, Benjamin J. Rosenthal, 170 Wabash Ave., and Louis Eckstein, 158 State St., are the promoters. Holabird & Roche, 98 Jackson Boulevard, are the Archs. Estimated cost, $1,500,000.

CHICAGO, ILL.—The Franklin Co., Engrs., has purchased a plot on Dearborn St., 125 × 62.5 ft., at a cost of $300,000, and plans to construct a 16-story fireproof building. Plans are being prepared by S. N. Crowen, Arch., Stock Exchange Bldg. E. D. Moeng is Pres.

PEORIA, ILL.—Plans are being prepared By Hewitt & Emerson, Archs., 321 Main St., Peoria, and Shattuck & Hussey, Archs., of Chicago, for the construction of a Y. M. C. A. building in Peoria. The contract has been awarded to FRED. MEINTS, of Peoria. It will be a 3-story structure, on a lot 100 × 150 ft. Cost, $88,000.

MILWAUKEE, WIS.—Courtenay & White and the Gilman Estate have purchased the Bartlett property on Jefferson St. for $60,000, and, it is said, are planning the erection of a building.

*STEVENS POINT, WIS.—Bids will be received by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., Jan. 25, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the U. S. post-office at Stevens Point.

MADISON, WIS.—H. H. Richards, Arch., 134 Van Buren St., Chicago, Ill., has completed plans for the proposed Hotel Metropole, to be erected by the Metropole Hotel Co. It will be a steel, fireproof structure, eight stories high, with a frontage of 44 ft. and a depth of 132 ft. It will be faced with white glazed brick, with green terra cotta trimmings, and will cost $120,000.

DULUTH, MINN.—Bids will be received until Jan. 6, by the Board of Education, for the construction of the proposed Jerome-Merritt school in the Oneonta District. Plans have been prepared by F. G. German, Arch., Lonsdale Bldg.

ST. PAUL, MINN.—Plans are being prepared by C. H. Johnston, Arch., Capital Bank Bldg., for the construction of a pressed brick and cut stone fireproof home for the aged, to be built by the Episcopalians of the city, on Langford Ave., near Pascal Ave. Rev. John Wright has charge of the raising of funds. Cost, $80,000.

ST. PAUL, MINN.—The State Board of Control, Charles Halvorson, Chn., will receive bids until 2 p. m., Jan. 3, for the general construction of the proposed Millard hall at the State University to cost $250,000, and for the construction of an institute of anatomy to cost $200,000. Separate bids will be taken on the same date also for the mechanical equipment complete. C. H. Johnston, city, is Arch.

*LEAD, S. DAK.—The following bids were received by James Knox Taylor, Superv. Arch., Treasury Department, Washington, D. C., on Dec. 14, for the construction of the U. S. post-office at Lead: King Lumber Co., Charlottesville, Va., $74,000; W. D. Lovell, Minneapolis, Minn., $79,000; J. H. Wiese, South Omaha, Neb., $69,880.

LEXINGTON, MO.—Bids were received as follows on Dec. 19, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office at Lexington.: M. Yeager & Son, Danville, Ill., $44,946; Conners Bros. Co., Lowell, Mass., $49,993; A. Anderson & Son, St. Louis, $42,773; Hiram Lloyd Building & Construction Co., St. Louis, $47,135; Latimer & Benning, Kansas City, Mo., $44,158; King Lumber Co., Charlottesville, Va., $44,300.

KANSAS CITY, MO.—D. H. Burnham & Co., Archs., Railway Exchange Bldg., Chicago, Ill., have completed plans for a 15-story building to be erected at the northeast corner of Eleventh and Main Sts. for the May-Stern Realty Co., of which A. Waldenheim, of St. Louis, is Pres. The structure will be 48 × 112 ft. Hughes Bryant, R. A. Long Bldg., is Financial Agt., and the plans and specifications are now in his office.

FORT WORTH, TEX.—Plans are being prepared by Waller & Field, Archs., Flatiron Bldg., Fort Worth, and will be ready for estimates about Mar. 1, for the construction of a college building and dormitory for the Texas Christian University. The plot is 180 × 60 ft. The structures will be three and four stories high, of reinforced concrete construction. Cost, $130,000.

HOUSTON, TEX.—Bids are asked until Dec. 28, by Mauran & Russell, Archs., Chronicle Bldg., for the construction of a 12-story building for the Union National Bank, at Main and Congress Sts.

Plans are being prepared by Sanquinet & Staats, Archs., of Fort Worth, for the erection of a 7-story telephone exchange for the Southwestern Telephone & Telegraph Co., of Dallas. It will be a fireproof structure, 50 × 125 ft., of reinforced concrete. Bids will be received some time during February. F. W. Yenson is Ch. Engr. Estimated cost, $150,000.

TEXAS CITY, TEX.—The Texas City Co. plans to erect a hotel, at an estimated cost of $75,000, it is reported.

SEATTLE, WASH.—W. D. Van Siclen, Arch., Northern Bank Bldg., is preparing plans for an apartment house, to be erected on the southeast corner of Seventh Ave. and Madison St., for F. M. Stanley, at a cost of $50,000. The building will be of concrete construction, 60 × 114 ft., and will contain, when completed, about 70 2 and 3-room modern apartments. Plans are expected to be completed about Dec. 30.

The Union Land Co. has filed plans for a 6-story building, to be erected at the northeast corner of Fifth Ave. and Union St., from plans prepared by Wilcox & Sayward. The building is estimated to cost $80,000.

WALLA WALLA, WASH.—Eugene Boyer and associates plan the erection of a $75,000 building on Boyer Ave. The name of the structure will be "The Shady Hill Apartment."

ROSEBURG, ORE.—At a recent meeting of the Roseburg School Board it was decided to discard the Lane School building, erected ten years ago, and erect, in its stead, a Central High School, to cost in the neighborhood of $55,000.

PORTLAND, ORE.—Doyle & Patterson, Archs., Worcester Bldg., are preparing plans for a 12-story frame and concrete flooring and partitioned department store building, which is to be erected for the Lipman, Wolfe & Co. It will cost approximately $500,000.

Emil Schach & Son, Commonwealth Bldg., is taking bids for an apartment building, to be erected for Mrs. Isam White, at Second and Madison Sts. L. L. White, Sherlock Bldg., represents the owner. Estimated cost, $50,000.

A. C. Ewart, Arch., Beck Bldg., has plans completed and is asking for bids for erecting the proposed Palley apartments at Gilsan and 22d Sts. The structure will contain 158 rooms, electric passenger elevator, hardwood floors, steam heating, etc. Cost, $90,000.

OAKLAND, CAL.—Reed & Myers, Archs., have been commissioned to prepare plans for a building to be erected for the Security Bank & Trust Co. It will be a 7-story structure, and located at the northeast corner of Eleventh St. and Broadway. Estimated cost, $200,000.

The same architects have been selected to prepare plans for a 7-story brick building to be erected on 13th St., between Broadway and Franklin St., for the Atlantic, Gulf & Pacific Dredging Co., of which R. A. Perry is Gen. Mgr.

SACRAMENTO, CAL.—The name of the Farmers' & Mechanics' National Bank has been changed to the Guarantee Trust & Savings Bank. Construction work on the proposed 6-story class A reinforced concrete office building on Eighth, J and K Sts. will start next spring. Cost, $125,000.

SAN FRANCISCO, CAL.—A plot, 62.5 × 87.5 ft., at Sutter and Hyde Sts., has been purchased by Dr. Martin Krotoszyner for $45,000. Plans are being prepared by Herma Barth, Arch., 641 Mission St., for an apartment house on the site, at a cost of $50,000, making the total $95,000.

Bids will be received some time in January for the construction of a temporary city hall. It will be a 7-story and basement fireproof structure, 200 × 165 ft., of reinforced concrete. The site is part of the A. C. Whitecomb Estate, of which James Otis is Trustee. Heller & Wilson, First National Bank Bldg., are Consult Engrs. Estimated cost, $550,000.

LOS ANGELES, CAL.—J. V. McNEIL, Citizens National Bank Bldg., has secured the contract for the erection of a 10-story and basement reinforced concrete office and store building to be erected at Second St. and Broadway by the Broadway Investment Co. The building will be 50 × 164 ft., constructed entirely of concrete, the Kahn system of reinforcing being used entirely for the floors. The exterior will be plastered with cement and waterproofed, and the exterior ornamentation will be in cast cement. There will be three electric passenger elevators and two sidewalk elevators, a vacuum-cleaning system and steam heat. Paul C. Pape, Pacific Electric Bldg., is Arch., and B. Harris, Citizens National Bank Bldg., Supt. of Construction. Cost, $84,000.

JOHN REBMAN, Citizens National Bank Bldg., has been awarded the contract, at $45,000, for the erection of the superstructure of the 3-story apartment house to be erected at Sixth St. and Union Ave. by L. B. Cohn. It will be 145 × 104 ft., with the exterior plastered over metal lath; composition roof, clay tile hoods, steam heat and a vacuum-cleaning system. Neher & Skilling, Pacific Electric Bldg., are the Archs.

PHOENIX, ARIZ.—Norman F. Marsh, Broadway Central Bldg., Los Angeles, Cal., has been commissioned to prepare plans for a group of four buildings for a polytechnic high school here. Construction will be Class C, with plastered exterior over brick. Cost, $150,000.

OGDEN, UTAH.—A 3-story building is planned on Grant Ave., near 25th St., by the Commercial National Bank. A. R. Heywood is Pres. Estimated cost, $75,000.

WINNIPEG, MAN.—The contract to erect the train shed at the Union Depot has been let to the MANITOBA IRON WORKS CO., of Winnipeg. It will be 800 ft. long, and will require 1,000 tons of steel. It will be of the Bush Terminal type. Work will start at once.

The congregation of Westminster Church plans the erection of a church building, at a cost of $90,000. Address Isaac Pitblade, K. C., Winnipeg.

GRAND FORKS, B. C.—Bids will be received until 4 p. m., Dec. 28, by R. C. Desrochers, Secy. Dept. Pub. Works, Ottawa, Ont., for all trades necessary for the erection of a public building here.

EDMONTON, ALTA.—The Bank of British North America has purchased a site on Jasper Ave., near First St., for $75,000, on which to erect a banking house, to cost, approximately, $100,000.

Robert Tegler has commissioned H. A. Magoon, Arch., to prepare plans for a 50× 150-ft. 6-story business and office building, to cost $100,000.

Crafts, Lee & Gallinger plan to construct a 7-story business block, 100 × 150 ft., to cost $180,000.

T. A. Blackburn contemplates erecting a 6-story building, 50 × 150 ft., to cost $90,000.

WATER SUPPLY—IRRIGATION.

*PITTSFIELD, MASS.—We are officially advised that bids were received as follows on Dec. 12 by the Board of Public Service for constructing a dam and reservoir: John Gaul & Co., Philadelphia, Pa., and Grant Rohrer, New York, $550,780. Fred T. Ley & Co., Springfield, Mass., $486,137. Luke D. Mullen, Boston, $577,495. WINSTON & CO., 200 Broadway, New York, $390,600 (awarded contract). MacArthur Bros. Co., 11 Pine St., New York, $467,840. T. F. Cogan, New York, $403,980. The Conners Bros. Co., Lowell Mass., $490,905. Coleman Bros., Boston, $404,385. Daniel O'Connel's Sons, Holyoke, Mass, $489,600.

FITCHBURG, MASS.—The city is considering the construction of a water supply system. A committee has been appointed to investigate the probable cost of the same, and to make a report on their investigation about the middle of January.

*NEW YORK, N. Y.—Bids were received by the Board of Water Supply on Dec. 13 for Contract 43, for furnishing and delivering certain apparatus and materials, and furnishing, delivering and installing certain other apparatus and materials, at Ashokan, Kensico and Hill View reservoirs and in various structures along Catskill Aqueduct in Ulster, Orange, Putnam and Westchester Counties. The apparatus and materials consist of 63 6-in. to 72-in. gate-valves, 24 6-in. and 12-in. sluice-gates, ten 6-in. check-valves, two 6-in. stop-valves, seven hydraulic cylinders for gate-valves, two motor driven operating mechanisms, nine hand operating mechanisms and miscellaneous appurtenances. The bids follow: Coffin Valve Co., Neponset, Mass., $69,444; Ogden Iron & Steel Mfg. Co., 147 Cedar St. New York, $69,965; Pittsburg Valve Foundry & Construction Co., 30 Church St, New York, $70,882.

ELMIRA, N. Y.—F. A. Shaw, Lancaster, Pa., is preparing plans for proposed work by the Elmira Water, Light & R. R. Co., including the construction of a new reservoir on West Hill, with a capacity of 4,000,000 gallons; a 30-in. pipe line from the filtered water reservoir, and a 30-in. line across Hoffman Creek, and two 8,000-gallon pumps.

TROY, N. Y.—Two bids were received by the Board of Contract and Supply, on Dec. 13, for furnishing 4,300 ft. of 12-in. c.-i. pipe for use in the Bureau of Water Supply. Charles Miller & Son Co., Utica, N. Y., bid $21 per ton, and the U. S. Cast Iron Pipe & Foundry Co., $21.15 per ton. The bids have been rejected, and bids for 6-in. pipe will be asked.

YONKERS, N. Y.—The Board of Estimate has approved an ordinance to substitute 12-in. for 6-in. water mains in Walnut, Elm and Oak Sts. Daniel Cashin is Pres.

EAST ORANGE, N. J.—The U. S. CAST IRON PIPE & FOUNDRY CO., 79 Broadway, New York, has been awarded the contract by the Water Commissioners for furnishing 180 tons of c.-i. pipe, 6 and 8 ins. in diameter, at $21.20 a ton, and 25 tons of specials at $47 per ton.

PHILADELPHIA, PA.—The Girard Estate has purchased property in the Catawissa Valley, north of Shenandoah, and is considering the construction of a large reservoir.

BRISTOL, PA.—The Borough Council has authorized the Borough Solicitors to advertise for bids for the construction of a municipal water-works and the construction of a sewer system.

PITTSBURG, PA.—The new basin of Highland Reservoir No. 2 will be repaired. Joseph C. Armstrong is Dir. Pub. Wks.

CUMBERLAND, MD.—Bids, it is expected, will be received next month for the construction of a system of water-works. James H. Fuertes, 140 Nassau St., New York, is Engr.

FORT SMALLWOOD (Baltimore post-office), MD.—Bids will be received by the Constructing Quartermaster, U. S. A., Fort Howard, Md., until Jan. 10, for constructing a pump house and installing pumping machinery at Fort Smallwood.

RICHMOND, VA.—The Superintendent of Water-Works will soon ask for bids for cleaning reservoirs.

ROMNEY, W. VA.—The city will spend $15,000 for the construction of water-works, including concrete reservoir of 60,000 gallons capacity and installation of pumps and engine. T. Chalkley Hatton is Engr., Wilmington, Del.

TARBORO, N. C.—All bids received on Dec. 5 by John A. Weddell, Clk., Tarboro, for laying about one mile each of 6 and 8-in. c.-i. bell and spigot water mains and specials, and setting about 16 fire hydrants, were rejected.

JONESBORO, N. C.—The city has decided to construct a water-works system.

YORKVILLE, S. C.—The date of opening bids for the construction of a mechanical gravity filter plant has been postponed until Dec. 30. Bids were to have been opened on Dec. 15. John G. Barnwell is Supt. W. Wks.

KINGSTREE, S. C.—The city is considering the construction of water-works. J. Newton Johnson, City Engr., of Florence, S. C., will make surveys and estimate upon the cost.

AIKEN, S. C.—The Public Works Commission has engaged Harry Sudlow, Aiken, to prepare plans and specifications and to supervise the construction of water-works. The work will require 3½ miles of 18-in. wood or stone, spiral united or lightweight gravity pipe; two 500 or 700-gallon-per-min. triplex pumps, operated by a Corliss engine; and about 14 or 16-in. c.-i. pipe of four units pressure.

TIMMONSVILLE, S. C.—The Commissioners of Public Works have awarded contracts for the construction of water-works, as follows: Water-works system, to ABEE & HART, Hickory, N. C.; well, to WM. E. HUGHES, Charleston, S. C. Estimated cost, $30,000. J. N. Johnston is Engr., Florence, S. C.

DUBLIN, GA.—The city has voted $30,000 of bonds for improving the water and electric light plants and paving streets.

ROME, GA.—The citizens, on Dec. 6, voted to issue $75,000 of bonds for water-works improvements.

ATLANTA, GA.—We are officially advised that bids were received on Dec. 15 by W. Z. Smith, Gen. Mgr., Atlanta Water Works, for furnishing material and grading the new reservoir, and for stone and riprapping the embankments and slopes, 14,000 sq. yds. of riprapping and 50,000 cu. yds. of excavation. The contract has been awarded to

the NICHOLS CONTRACTING CO., Atlanta, at 62½ cts. per sq. yd. and 27½ cts. per cu. yd., respectively. R. M. Clayton is City Engr.

SAVANNAH, GA.—Bids will be received by C. M. Fauntleroy, Medical Officer in Command, U. S. Quarantine Station, until 3 p. m., Dec. 29, for the construction of a trestle and water tank at the U. S. Quarantine Station.

DAYTON, KY.—Bids will be received until Jan. 1 by William C. Martin, City Clk., for a franchise to construct and operate a water-works system for a period of 18 years.

•PADUCAH, KY.—See item under Streets and Roads.

LAKEWOOD, OHIO.—The William H. Evers Engineering Co., Arcade Bldg., Cleveland, Ohio, has been engaged to prepare plans for two 500,000-gallon stand pipes, to be erected next year.

LIMA, OHIO.—The State Board of Health has ordered the city to construct a filtration plant. The Council is considering the matter.

CLEVELAND, OHIO.—We are officially advised that bids were received by the Department of Public Service, on Dec. 12, as follows, for two 25,000,000-gallon pumping engines; HOLLY MFG. CO., Buffalo, N. Y., three propositions—$108,769, $112,769 and $120,769 (awarded contract). William Tod Co., Youngstown, Ohio, Plan A, $117,000; Plan B, $116,600. Wisconsin Engine Co., Corliss, Wis., $723,500. Hooven-Owens Rentschler Co., Hamilton, Ohio, $125,000. Allis-Chalmers Co., Milwaukee, Wis., $129,227. Bethlehem Steel Co., South Bethlehem, Pa., $142,000.

Bids were also received as follows for (a) 3,500 tons of 3 to 24-in. c.-i. pipe; (b) 130 tons of specials; Camden Iron Works, Camden, N. J., (a) $82,391; (b) $6,505; total, $88,896. U. S. Cast Iron Pipe & Foundry Co., 1150 East 26th St., Cleveland, (a) $85,-225; (b) $7,290; total, $92,515. American Car & Foundry Co., Detroit, Mich., (a) $89,-868; (b) $6,708; total, $96,576. Bowler Foundry Co., 1688 Columbus Road, Cleveland, (b) $7,597.

EUCLID, OHIO.—Bids will be received by Nelson J. Brewer, Village Clk., until noon, Jan. 9, for the improvement of Cliffview Ave., from Euclid Road to Roseland Ave., by constructing a 6-in. water main; also for a 6-in. water main in Hillview Ave., from Euclid Road to Roseland Ave., and in Dunham Ave., from Euclid Road to the New York Central & St. Ians R. R. tracks. The F. A. Peace Engineering Co. is in charge of the engineering work, 931 Williamson Bldg., Cleveland.

BIG RAPIDS, MICH.—W. G. Fargo, Commonwealth Bldg., Jackson, Mich., is preparing preliminary plans for the construction of a new water-works system for the city. The citizens have voted to spend about $30,000.

DETROIT, MICH.—The Edison Illuminating Co., Alexander Dow, Gen. Mgr., Washington Ave., and State St., is having plans prepared by its architectural and engineering force for a new 2-story addition, 160 × 32 ft., to the Jefferson Ave. pumping house Estimated cost, $35,000. Bids will be asked soon.

McLEANSBORO, ILL.—We are officially advised that the contract has been awarded by the city to GOETZ & CHIPMAN, Evansville, Ind., for the construction of a dam, spillway and reservoir, and extending the water mains, at $14,000. The city is in the market for a motor and centrifugal pump. Marshall Spivly is Supt.

DIXON, ILL.—The Sterling Dixon & Eastern Interurban Co., it is reported, will develop its water plant, located above the dam east of Dixon.

SPARTA, WIS.—Bids will be received until Jan. 5 by the city for high-duty pumping engines of 1,500,000-gallons capacity daily.

We are officially advised that the city will make extensions to the water mains. C. H. Gregory is Supt. and Secy.

ATLANTIC, IOWA.—The city has voted bonds for $50,000 for the installation of a light and water plant.

HAMILTON, IOWA.——The City Council is considering the construction of a water system.

NEWTON, IOWA.—Bids will be received by E. G. Finch, City Clk., until 7.30 p. m., Jan. 9, for the construction of a steel water tank, to be constructed of steel, upon a steel trestle 100 ft. in height. Capacity, 100,000 gallons.

NORTH MANKATO, MINN.—Oscar Claussen, Consult. Engr., St. Paul, Minn., is preparing plans for the construction of the water system. Estimated cost, $20,000.

ONAGA, KAN.—Bids will be received by Elmer E. Hines, City Clk., until 7 p. m., Jan. 10, for constructing a system of water-works. Burns & McDonnell, Scarritt Bldg., Kansas City, Mo., are Engrs.

STAFFORD, KAN.—Bids will be received by N. P. Reid, City Clk., until 8 p. m., Jan. 3, for the construction of a system of water-works. The J. S. Worley Co. are Engrs., Reliance Bldg., Kansas City, Mo.

BLADEN, NEB.—Bids will be received by the Board of Trustees until 2 p. m., Dec. 23, for the construction of a system of water-works and an electric lighting plant. Estimated cost, $14,000. Frank Burden is Village Clk.; Chas. F. Sturtevant is Consult. Engr., Holdrege, Neb.

GILTNER, NEB.—Bonds for the construction of a water-works system here have been voted.

MANDAN, N. DAK.—Plans for the construction of a water-works system have been submitted to the city.

WINDSOR, MO.—Bids were received on Dec. 6 for the construction of water-works from the plans of Rollins & Westover, Kansas City. The contract has been awarded to T. C. BROOKS & SON, Jackson, Mich., at $28,579. Other bids were: Cooke Gregory Engineering Co., Joplin, $31,-850; N. S. Sherman Machine & Iron Works, Oklahoma City, Okla., $30,966; Des Moines Bridge & Iron Co., Des Moines, Iowa, $29,-960; Katz Craig Contracting Co., Omaha, Neb., $29,750; Cook Construction Co., Des Moines, $31,584; W. L. Lowell, Minneapolis, Minn., $30,200; W. F. Hall, Clinton, $32,471; J. W. Smith & Son, Webb City, Mo., $35,-700; Will F. Plummer Co., Springfield, Mo., $34,900; Bash & Gray, Joplin, $29,820.

PLATTSBURG, MO.—We are officially advised that the city will soon vote upon a bond issue for the construction of water-works and sewers here. Estimated cost, $35,000. Rollins & Westover are Engrs., Kansas City, Mo. Noted on Dec. 8.

KANSAS CITY, MO.—The contract for the construction of a new pump pit and sub-foundation at the Quindaro pumping station has been awarded, it is reported, by the Board of Fire and Water Commissioners to the A. M. BLODGETT CONSTRUCTION CO., 1013-14 Commerce Bldg., Kansas City, Mo.

PORTLAND, ARK.—We are officially advised that the water-works to be installed here will not be ready for construction until about 90 days. Estimated cost, $35,000. Dickinson & Watkins are Engrs., State Bank Bldg., Little Rock, Ark. Noted on Dec. 8.

BRYAN, TEX.—The city has awarded the contract to LAYNE & BOWLER, Houston, Tex., for drilling test well preparatory to constructing the municipal water and sewer systems. The water mains will be extended in the eastern section about 2,000 ft.

PORT LAVACA, TEX.—The city is considering the construction of water-works. Address C. J. Spittal.

STAMFORD, TEX.—The Stamford Water Works Co. will construct a reservoir, dam and spillway, containing about 65,000 cu. yds. Gurley & Hill are Engrs., Stamford.

DENISON, TEX.—The City Council on Dec. 12 awarded the contract to the BRIGGS-WEAVER MACHINERY CO., Dallas, Tex., for furnishing a pump and engine, at $11,-740.

LAMONT, OKLA.—The city has voted $17,000 of bonds for the construction of a water-works system.

DENVER, COLO.—A pumping station with a capacity of 5,000,000 gallons per day is proposed by the Denver Union Water Co. for University Park. The company has purchased a tract of ground in the park near the Colorado & Southern Ry. tracks as a site for the station. The improvement will cost about $50,000.

FORT COLLINS, COLO.—A preliminary map of the Poudre No. 2 reservoir was filed on Dec. 8 with the County Recorder. The specifications call for an expenditure of $1,-500,000. A dam will be constructed across the Poudre Canon, which will empound nearly 5,000,000,000 cu. ft. of water. Among the projects which the construction of the reservoir entail are the tunneling of the Medicine Bow range and a tunnel through Green Mountain. The plat was filed by T. D. Jones, of Denver, Colo., engineer for the company.

DENVER, COLO.—The Blue Mountain Land & Irrigation Co. has submitted plans to the State Land Board, Denver, for the irrigation of 435,000 acres of government and state land in Rio Blanco and Routt Counties, Colo., and in Utah. The water will be taken from White River.

CARLSBAD, N. MEX.—The Reclamation Service is making surveys for additional construction on the Carlsbad project. McMillan reservoir will be enlarged and extensive repairs on the main canals are contemplated. Reservoir No. 3 will be examined, and estimates made of the cost of construction of the reservoir.

PRESCOTT, WASH.—The cost of irrigating 20,000 acres of the lower Eureka flat project will cost $249,278. A canal 12 ft. wide, 3 ft. deep and 32½ miles long will have to be dug, according to the engineers' estimate filed with Frank Tierney, Walla Walla, Wash., representative of the landowners back of the reclamation project. A meeting of the farmers owning land to be reclaimed by the canal will be held when final steps will be taken to incorporate a company to carry on the undertaking. In the estimate, $114,048 is allowed for excavation. There will be a mile of rock work to cost about $31,680. A half-mile of siphons will cost $15,840, according to the estimate. There will be nearly a mile of fluming, the cost of which is estimated at $26,408. The ditch will commence near Prescott.

ELLENSBURG, WASH.—G. N. Miller, City Engr., has completed plans for the construction of the proposed water system.

TACOMA, WASH.—Bids were opened on Dec. 5 by the city for the construction of a 100,000,000-gallon reservoir at McMillan. Only two bids were received, one from the Sound Construction & Engineering Co., Seattle; the other from Laughlin & Woldson, Spokane. Estimated cost, $310,000.

SPOKANE, WASH.—New bids will be received until Jan. 3 by the Board of Public Works for the construction complete of the Lincoln Heights reservoir. Estimated cost, $170,000.

GRESHAM, ORE.—Louis C. Kelsey, Salt Lake City, Utah, has been engaged by the city as engineer for the construction of the proposed water system and power plant.

SILVERTON, ORE.—We are officially advised that preliminary surveys are being made for the construction of a gravity water system. A vote on bonds will be taken as soon as plans are ready. Estimated cost, $75,000. N. C. Hubbs is City Engr.

PORTLAND, ORE.—Bids were received at the office of the United States Reclamation Service, Portland, on Nov. 30, for the construction of the Lost River diversion chann l, located about seven miles southeast of Klamath Falls, Ore., Klamath project, Oregon-California. This work consis s of constructing about seven miles of drainage channel and involves about 332,400 cu. yds. of excavation and embankment. The contract has been awarded to W. H. MASON, Klamath Falls, Ore., at $63,607.

SIERRA MADRE, CAL.—The citizens on Dec. 14 voted to issue $40,000 of bonds to increase the water supply and establish a system of fire protection.

OCEANSIDE, CAL.—Bonds for $20,000 have been sold for water-works improvements.

ORLAND, CAL.—The Secretary of the Interior, Washington, D. C., has awarded a contract to HARD BROS., Concord, Cal., for grading work on the distribution system, Orland irrigation project, Cal., at $10,738. The work involves the excavation of approximately 38,000 cu. yds. of material.

TURLOCK, CAL.—The Turlock Irrigation District has voted to issue bonds for $1,-206,000 for improvements in the irrigating system. The money will be expended on canals and a large storage reservoir for use during the dry season. The members of this district are using about 1,000 ft. of water, and in making the improvements the plant will be enlarged to care for 2,000 ft. The water will be taken from the Tuolumne River.

SAN DIEGO, CAL.—The Interstate Realty Co., J. D. Miller, Gen. Mgr., has purchased a 500-acre tract of land near Sweetwater dam. The company will spend $30,000 in improving the tract. Streets are to be graded and engineers are now estimating on the construction of a water system which will draw its supply from Sweetwater dam.

MONROVIA, CAL.—C. H. Reed, Jr., City Clk., has stated that the City Trustees will be ready about Jan. 1 to receive bids for quantities of water pipe for the construction and extensions of the municipal water system.

PHOENIX, ARIZ.—The Salt River Valley Water Users' Association has opened bids for a new water temple. The bidders were: S. J. Eubanks, $28,985; Hurlbut & Co., Los Angeles, $34,490; Olsen & Co., $34,757; T. B. Stewart, $35,872; Clinton Campbell, $36,-267; Tom Edens, $39,192.

DOUGLAS, ARIZ.—Bids will be received by R. G. Arthur, Secy. Bd. Water Comrs., about the middle of January for the construction of a system of water-works and an electric light plant. Estimated cost, $85,000. E. T. Archer & Co., Beals Bldg., Kansas City, Mo., are in charge of the engineering work.

•BOISE, IDAHO.—Contract for furnishing steel headgates for the Boise project has been awarded to the GIBERT HUNT CO., Walla Walla, Wash., and the MINNEAPOLIS STEEL & MACHINERY CO., Minneapolis, Minn., by the U. S. Reclamation Service.

PRINCE RUPERT, B. C.—Bids will be received by Alexander Johnston, Deputy Minister of Marine and Fisheries, Ottawa, Ont., until noon, Jan. 3, for the installation of a water system here.

KERRISDALE, B. C.—Bids will be received by the city until Dec. 29 for the supply of special castings for the water-works system which is to be installed early in the year and for the supply of 35 miles of steel pipes varying from 6 to 24 ins. in diameter.

VICTORIA, B. C.—Bids are asked until Jan. 1 for the reorganization, improvement and extension of a water supply system here. Address Colonist Office for further information.

POINT GREY, B. C.—The contract has been awarded to R. McLEAN & CO., for the construction of a reservoir here on the Whitehead Road, with a capacity of 3,000,000 gallons. Estimated cost, $58,000.

VICTORIA, B. C.—Bids will be received until Dec. 27 for supplying British c.-i. water pipe and special castings. R. Fowler is Municipal Engr., Law Chambers, Bastion St., Victoria.

WINNIPEG, MAN.—Bids will be received until Dec. 28, by the Board of Control, M. Peterson, Secy., for the supply of the following water meters: Ten 2-in.; 22 1½-in., and 43 1-in.

SEWERS.

(•Denotes that this work is advertised in Engineering News.)

AUBURN, N. Y.—A sewage disposal plant is to be built for the Auburn State Prison, Auburn, N. Y. Z. T. DARROW & SON, Canadaigua, N. Y., have contract for construction work outside of prison walls, at cost of $4,797. Convicts will do work inside walls.

ATLANTIC CITY, N. J.—Bids were received at Atlantic City on Nov. 14 for the construction of a main drainage conduit and branches. Contract awarded by Councils Dec. 12 to WILLIAM G. ROOT, New York City. Contract (A) William G. Root, New York City, $669,-831; McArthur Bros. Co., $695,844; United Paving Co., Atlantic City, $705,522; Harrison Construction Co., Newark, N. J., $702,-797; Edward L. Bader, Atlantic City, $717,-612; Luke D. Mullen & Co., Boston, $739,648. Contract (B) William G. Root, $1 1,357; McArthur Bros. Co., $162,852; United Paving Co., $161,359; Harrison Construction Co., $171,887; Edward L. Bader, $177,389; Luke D. Mullen & Co., $181,007.

BRISTOL, PA.—See item under Water Supply—Irrigation.

NORTH EAST, PA.—A sewerage disposal plant will be constructed here; plans are in the course of preparation. The construction of a sewer system is also contemplated. C. C. Hill is Boro. Engr.

NEWCASTLE, PA.—The contract has been awarded to F. M. MAYBURRY, Newcastle, for the installation of a sanitary sewer in Clearview Ave., from Long Ave. to a point 115 ft. south of Reynolds St.

SCHUYLKILL HAVEN, PA.—Bids will be received at the office of the County Controller of Schuylkill County until noon, Jan. 17, for a sewage disposal plant in a building for the insane at Schuylkill Haven, Pa.

BALTIMORE, MD.—Bids will be received by the Cityco Realty Co., 1201 Calvert Bldg., through Reding & Howard, Hoffman Bldg., 11 East Lexington St., Baltimore, for the construction of a sewerage system in Park Hill.

WASHINGTON, D. C.—Bids were received as follows on Dec. 19, by the Commissioners of the District of Columbia for the construction of sewers in the District of Columbia: (1), Warren F. Brenizer Co.; (2) E. G. Gummel; (3) George Hyman. (4) James A. Coyle, all of Washington, D. C. Florida Avenue Trunk Sewer, ordinary excavation, (1) 80 cts., (2) $1.25; vitrified brick masonry, (1) $21, (2) $18; concrete masonry, "D," (1) $7, (2) $8.50; 6-in. sub-drain pipe, (1) 30 cts., (2) 25 cts. Sewer in vicinity of Langdon, D. C., ordinary excavation, (1) 65 cts., (2) 70 cts., (3) 49 cts.; brick masonry, (1) $13, (2) $14, (3) $13; Vitrified brick masonry, (1) $21, (2) $18, (3) $20; concrete masonry, "D," (1) $7, (2) $7, (3) $7; 6-in. sub-drain pipe, (1) 30 cts., (2) 20 cts., (3) 30 cts.; 24-in. sewer pipe, (1) $1.10, (2) $1, (3) $1.05; 21-in. sewer pipe, (1) 95 cts., (2) 90 cts., (3) 95 cts. Sewer in vicinity of Tenleytown, D. C., ordinary excavation, (1) 50 cts., (2) 55 cts., (4) 55 cts.; brick masonry, (1) $13.50, (2) $15, (4) $14; 15-in. pipe, (1) 65 cts., (2) 69 cts., (4) 75 cts.; 12-in. pipe, (1) 60 cts., (2) 58 cts., (4) 60 cts., 10-in. pipe, (1) 55 cts., (2) 50 cts., (4) 50 cts. Rock Creek and B St. intercepting sewer between Pennsylvania Ave. and M St., ordinary excavation, per lin. ft. of trench, (1) $24; brick masonry (1) $20; vitrified brick masonry, (1) $25; concrete masonry, "B," (1) $15; concrete masonry, "C," (1) $14. Sewer in vicinity of Bureau of Engraving and Printing, Sewer "A," ordinary excavation, (1) 60 cts., (2) $1.50, (3) 45 cts.; brick masonry, (1) $15, (2) $15, (3) $13; 24-in. pipe, (1) 90 cts., (2) $1.25, (3) 90 cts.; 21-in. pipe, (1) 80 cts., (2) $1.15, (3) 80 cts.; Sewer "B," ordinary excavation, (1) 55 cts., (2) $1.50, (3) 45 cts.; brick masonry, (1) $13, (2) $15, (3) $13; 24-in. pipe, (1) 90 cts., (2) $1.25, (3) 90 cts. Anacostia Sewer, ordinary excavation, (1) 50 cts., (2) 50 cts., (3) 49 cts., (4) 80 cts.; sewer brick masonry, (1) $13, (2) $13, (3) $13, (4) $16; 12-in. pipe, (1) 60 cts., (2) 55 cts., (3) 54 cts., (4) 70 cts.

WASHINGTON, D. C.—Bids will be received at the office of the Commissioners until 2 p. m., Jan. 3, for the installation of sewers in the District of Columbia. Further information may be obtained from the Chief Clerk, Room 527, District Building, Washington, D. C.

CHARLOTTE, N. C.—The contract has been awarded to W. S. STANCILL to improve two septic tanks, at $12,510. Joseph Firth is City Engr.

KINGSTREE, S. C.—The construction of a sewer system is under consideration. Surveys will be made by J. Newton Johnson, City Engr.

AKRON, OHIO.—Bids will be received at the office of the Board of Control until noon, Dec. 27, for the construction of a sewer in Water St., from State St. to Bowery St., and in Brown St., from South St. to Baird St.; Allyn St., from South St. to Crosier St. and Sumner St., from South St., to Crosier St., together with laterals thereto for house connections, and for extending a sewer in Glenwood Ave., from Turner to Howard Sts., a distance of about 1,200 ft. John W. Gauthier is Director of Public Works.

AKRON, OHIO.—Ordinances have been adopted by the City Council for the construction of a storm sewer along the railroad tracks from Market St. to Oil St., and for the improvement of South St., from the railroad tracks to Spicer St., by grading, curbing and paving.

BOWLING GREEN, OHIO.—The City Council has adopted a resolution declaring it necessary to construct a lateral sewer in South Enterprise St.

CHILLICOTHE, OHIO.—The contract has been awarded to JARDINE, BREWER & TOMLINSON for the Sugar St. sewer for the N. & W. R. R. The contract called for about 4,700 ft. of sewer.

DELAWARE, OHIO.—Plans are being prepared by George S. Irwin, City Engr., for the installation of a sewerage system and disposal plant. The estimated cost is $25,000.

ELYRIA, OHIO.—The contract has been awarded to S. MENDELSON, Elyria, Ohio, for the installation of a sewer in Harwood and Coraliso Sts. About 2,000 ft. of 8-in. salt-glazed tile will be used. C. D. Butt, Elyria, is Engr.

MARIETTA, OHIO.—It is reported that sanitary sewers are contemplated. About 1,840 ft. 12-in., 900 ft. 10-in., 1,605 ft. 8-in., 1,814 ft. 4-in. sewer pipe, five lampholes, seven manholes and three flush tanks will be required. F. Gates is Engr., Marietta.

GOSHEN, IND.—Bids will soon be asked for the installation of a sewer in Elkhart Court. C. W. Witt is City Engr. About 1,000 ft. of 8-in. to 10-in. crock tile will be required.

INDIANAPOLIS, IND.—The contract has been awarded by the Board of Public Works, Frank Neil, Secy., to SHEEHAN CONSTRUCTION CO., 534 Bell St., Indianapolis, for the construction of sewers. The work includes 84 ft. of 6-in. pipe and 366 ft. of 12-in. pipe. W. H. Klausmann, Majectic Bldg., Indianapolis, is Engr.

MONTGOMERY COUNTY, IND.—Bids will be received soon for the construction of a sewer consisting of a 1-mile clay tile ditch. M. L. Nees is Supt. of construction.

NILES, MICH.—It is reported that a trunk sewer will be installed in Sycamore and Fifth Sts., Berrien County. The estimated cost is $30,000. W. C. Cleary, St. Joseph, is Engr.

DETROIT, MICH.—The Common Council of Detroit, at its meeting on Dec. 14, directed the Department of Public Works, J. J. Haarer, Comr., 104 City Hall, to advertise for proposals for constructing the following lateral sewers: Lateral Sewer No. 2166, estimated cost per lin. ft., $1.80; No. 3172, $1.73; No. 2173, $1.75; No. 2174, $1.50; No. 2175, $1.40; No. 2177, $1.60; No. 2178, $1.50; No. 2181, $1.60.

GREEN BAY, WIS.—The installation of a sewer in the 17th district is contemplated. Wm. H. Reed, City Hall, Green Bay, is the Engr. The estimated cost is $15,000.

BRAINARD, MINN.—Bids will be received after Jan. 1 for a sewer extension in the Third Ward. The work includes catch basins, cast-iron rings and covers. R. R. Whitely is City Engr.

ABERDEEN, S. DAK.—Bids will be received by the Auditor of Aberdeen until 8 p. m., Jan. 9, for the installation of sewers on Eleventh Ave. southeast from Washington to Lincoln St.; on Lincoln St. south from Eleventh Ave. to Fourteenth Ave.; on Fourteenth Ave., from Lincoln St. to Second St. south; on Main St. south, from Fourteenth Ave. approximately 590 ft. north to center of blocks 1 and 2, Simmons' First addition; on Thirteenth Ave. southwest approximately 100 ft. to center of block 2, Simmons' First addition to Aberdeen, S. Dak.; on Arch St., north from First Ave. to Seventh Ave. northeast. Further information may be obtained from F. W. Raymond, City Audr.

CONRAD, MONT.—The contract has been awarded to I. E. SANFORD for the installation of a sewer system for this place. Construction work will commence at once.

ST. LOUIS, MO.—Bids will be received by Maxime Reber, Pres. of the Board of Local Improvements, until noon, Dec. 23, for installing a sewer of reinforced concrete, 12 ft. wide by 9 ft. 7¼ ins. high (inside measurements), 4,792 ft. in length, with junctions, manholes and all other necessary appurtenances. First section North Harlem Joint Sewer Dist. Also a sewer of reinforced concrete, 10 ft. wide by 8 ft.. high (inside measurements), 3,557 ft. in length. A sewer of brick laid in Portland cement mortar, 7 ft. 6 ins. diameter, 176 ft. in length; second section in North Harlem Joint Sewer Dist. A sewer of brick laid in Portland cement mortar, 7 ft. diameter, 1,736 ft. in length. A sewer of brick laid in Portland cement mortar, 5 ft. 6 ins. diameter, 717 ft. in length. A sewer of brick laid in Portland cement mortar, 55 ins. mean diameter, 808 ft. in length, with junctions, manholes and all other necessary appurtenances. Plans and specifications may be seen at the office of the Board of Public Improvements.

WARRENTON, MO.—Bids will be received until 2 p. m., Dec. 28, by the City Clerk for the furnishing of all labor and material necessary for the installation of a sanitary sewer system. Plans may be obtained at the office of City Clk., Warrenton, Mo.

CHECOTAH, OKLA.—Bids will be received by Ben Huddeston, City Clk., until 8 o'clock p. m., Jan. 16, 1911, for constructing approximately eleven miles of 8-in., 10-in. and 12-in. sewer, together with manholes, flush tanks, disposal works, and lampholes, according to plans and specifications on file with the City Clerk.

YUKON, OKLA.—The contract has been awarded by the city to N. S. SHERMAN, connected with the N. S. Sherman Machine & Iron Works, for the installation of a sewer system and sewage plant, at $40,000.

CHEHALIS, WASH.—Bids will be received by the City Council until Jan. 2 for the installation of a sewer system in eastern and southern parts of the city. F. J. Hermans is City Engr.

PASCO, WASH.—The contract has been awarded by the City Council to J. D. YOUNG, representative of the Newport Engineering Co., Portland, Ore., for the installation of a sewer system. The estimated cost is about $70,000.

OROVILLE, CAL.—Bids will be received by the Board of Trustees until 1.30 p. m., Jan. 3, for the installation of about 84,000 ft. of sewer varying in size from 6 ins. to 24 ins., and the erecting of a sewage disposal works. The estimated cost of the disposal works is about $25,000. Plans, specifications, and proposal blanks can be obtained at the office of the Engineers in charge, Haviland & Tibbetts, Alaska Commercial Bldg., 310 Sansome St., San Francisco, Cal.

SAN FRANCISCO, CAL.—The Board of Public Works awarded the contract for constructing a 10-in. vitrified iron stone pipe sewer in crossing of Murray St. and Richland Ave., to FLINN TREACY; also awarded the contract for constructing an 8-in. vitrified salt-glazed iron stone pipe sewer in 19th Ave., from Pacheco to Ortega St., to FRED LEFFLER.

WINNIPEG, MAN.—The following contracts have been awarded: Main trunk sewer on Clifton St., from Portage to Sargent Ave., awarded to THOMAS KELLY & SONS, at $92,991. THOMAS JACKSON & SONS awarded contract for sub-main sewer on Sargent Ave., from Clifton to Strathcona Sts., at $6,437. Five other contracts were awarded to the Engineer of Construction, his bid being the lowest in each case.

WINNIPEG, MAN.—Bids will be asked for at once for the installation of sewers in Carter Ave., from Wolf to Cameron, and on Wolf Ave., from Carter to Naern, and for the construction of water mains on Salter St., on Ellice Ave., from Ingersoll to Garfield St., and on Helen, from Fathgar to Merrion.

VANCOUVER B. C.—The city has decided to call for bids for the installation of lateral sewers south of Broadway to connect with the Yukon St. trunk sewer and its branches.

NORTH VANCOUVER, B. C.—Bids will be received until Jan. 3 for furnishing materials for and completing sewers on Esplanade, First, Second, Third Sts., and a number of other streets in Vancouver. Plans at office of Geo. S. Hanes, City Engr.

GARBAGE DISPOSAL.

BOSTON, MASS.—The city proposes to construct an experimental garbage plant in the Brighton District. Estimated cost, $75,000. This is preliminary to a settlement of the method of garbage disposal for the whole city. Louis K. Rourke is Supt. of Sts. Noted on Dec. 15.

NEW YORK, N. Y.—Bids will be received by George Cromwell, Pres. Boro. of Richmond, until noon, Jan. 10, postponed from Dec. 27, for furnishing all the labor and materials required for the construction of the furnaces, steam boilers and appurtenances of the Clifton destructor, Boro. of Richmond, City of New York. The plans and specifications require a high temperature refuse destructor, composed of two units, each of 45 tons' capacity per 24 hours. The contract covers the erection and construction of the destructor (except building, chimney and foundations), with appurtenances, complete.

Bids will be received by William H. Edwards, Comr. of Street Cleaning, until Dec. 30, for furnishing all the labor and materials required to perform and complete abandoned contracts for the removal of snow and ice from the Third, Fourth, Fifth and Sixth snow removal districts, Boro. Manhattan.

NEW YORK, N. Y.—The Board of Estimate on Dec. 14 voted $247,000 additional for the removal of snow and ice in the city.

MONTCLAIR, N. J.—The town has purchased a site for a garbage crematory on North Fullerton Ave., north of Chestnut St. The plant cannot be constructed before the town secures the necessary legislation for a bond issue. Estimated cost, $50,000. Frank W. Crane is City Engr.

PATERSON, N. J.—The city is considering the construction of two garbage disposal plans. Estimated cost, $100,000. H. J. Harder is City Engr.

MILWAUKEE, WIS.—The final report of Hering & Fuller, Consult. Engrs., 170 Broadway, New York, regarding the construction of a new refuse incinerator, recommends the following: The erection of an incinerator on the west side to avoid the long hauls to the present plant; the consolidation of the two systems of collecting refuse and placing control under one head; the acquisition of all ground available near the incinerator for future extensions; a power house on the water side of the building, efficient labor and utilization of steam generator to reduce the cost of operation. The report was presented on Dec. 7.

OMAHA, NEB.—The City Council is considering the construction of garbage crematory. Investigations are now being made by a special committee. Estimated cost, $100,000.

ST. LOUIS, MO.—Bids will be received until noon, Dec. 23 by the Board of Public Improvements for street sprinkling. W. B. Dryden is Secy. Bd.

STREETS AND ROADS.

*(*Denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—An order has been passed by the Board of Street Commissioners for the change of grade and construction of St. James Ave. as a highway, southwesterly from Berkeley St. The cost of this work is estimated at $13,101, and the land damages, $5,700. This improvement is part of the general Park Sq. improvement. L. K. Rourke is Supt. of Streets.

HARTFORD, CONN.—Contracts for state road work, bids for which were received at the office of the Highway Commissioner on Dec. 13, have been awarded as follows:

Town of Norwich, 2,250 lin. ft. of graded-telford road to the BOARD OF SELECTMEN, A. W. Lillibridge, Chn., at $2.35 per lin. ft. for grading, $2.90 for telford, $1 for rubble drain, 60 cts. per sq. yd. for cobble gutters.

City of Waterbury, 13,268 lin ft. graded-telford road to JENKS & GOEPPLE, Wilton, Conn., at $14,900 for entire grading, and 75 cts. per lin. ft. for telford, 75 cts. per lin ft. for rubble drain, and 60 cts. per sq. yd. for cobble gutters.

NEW HAVEN, CONN.—The Board of Aldermen, on Dec. 12, approved the proposed bond issue as follows: For the extension of Orange St., $350,000; playgrounds, $100,000; for the improvement of the Central Green, $50,000; for permanent pavements, $400,000. C. W. Kelly is City Engr.

HARTFORD, CONN.—Plans for proposed road work have been received at the office of the State Highway Commissioner as follows: From Albert S. Brainard, Div. Engr., 2½ miles survey on the road from Simsbury to Granby Center and 1½ miles on the Wolcott Hill road in the Town of Wethersfield; from F. Walden Wright, Div. Engr., 6,300 lin. ft. survey in the Town of Sterling, beginning at the Oneco road and extending to the Rhode Island line; from C. H. Nickerson, C. E., in the Town of Sharon, 23,100 lin. ft. survey on the Sharon-Cornwall road.

NEW YORK, N. Y.—Bids will be received by Alfred E. Steers, Pres. Boro. of Brooklyn, until 11 a. m., Jan. 4, for regulating and paving, with asphalt, on a concrete foundation the roadways of various streets.

NEW YORK, N. Y.—The following bids were received on Dec. 19 by George McAneny, Pres. Boro. of Manhattan, (a) for regulating and grading with asphalt block pavement on a concrete foundation the road of 176th St., from Amstermadm Ave. to Audubon Ave; (b) repairing and maintaining sheet asphalt pavements in Borough of Manhattan: Barber Asphalt Paving Co., 30 Church St., (a) $4,615, (b) $255,900; Harlem Contracting Co., (a) $4,207; Uvalde Asphalt Paving Co., (b) $261,000; Sicilian Asphalt Co., (b) $355,400.

BUFFALO, N. Y.—The City Council has ordered the repavement of Sycamore St., 42 ft. wide, between Lathrop and Howlett Sts. Francis G. Ward, Comr. of Pub. Wks., Municipal Bldg., will advertise for bids for different kinds of material per plans and specifications on file with the Bureau of Engineering. William St. has also been ordered paved, 42 ft. wide, with dressed block Medna sandstone from North Ogden St. to the easterly city line.

UTICA, N. Y.—The Common Council has voted to pave or otherwise improve eleven streets next season. Joseph Kemper, Deputy City Engr., has practically completed survey, and the City Bureau of Engineering is assembling data to execute plans this winter so that work can be expedited next spring.

MALONE, N. Y.—The Franklin County Board of Supervisors voted to expend $250,000 in building 142 miles of macadam highways, with trunk lines north, east, south and west, and some lateral roads.

JERSEY CITY, N. J.—The contract to improve a portion of St. Paul's Ave., bids for which were received on Dec. 12, has been awarded to HENRY BYRNE, 392 Mercer St., Jersey City, we are officially advised.

WILKES-BARRE, PA.—The contract to pave the city side of Division St. has been awarded to the WARNER-QUINLAN CO., at $2.26 a sq. yd. JOHN FOLEY, of Wilkes-Barre, received the contract for furnishing red stone curb at 70 cts. a ft.

WASHINGTON, D. C.—The contract for grading Kearney St. has been awarded to E. G. GUMMEL, of Washington, D. C., at 21 cts. per sq. yd. Other bidders noted last week.

NORFOLK, VA.—Bids were received as follows on Dec. 17 by the Bureau of Yards and Docks, Navy Dept., Washington, for the paving in connection with the Norfolk Navy Yard: Atlantic Bitulithic Co., Mutual Bldg., Richmond, Vt., $24,000; F. J. McGuire, Paul Gale Greenwood Bldg., Norfolk, Va., $22,975; A. L. Dornin, 336 Raleigh St., Norfolk, $25,642; Alsop & Peirce, First National Bank Bldg., Newport News, $26,720; L. Lawson, 308 Highland Ave., Norfolk, $25,612; Field, Barker & Underwood, 718 Arcade Bldg., Philadelphia, Pa., $24,890.

FORT BARRANCAS, FLA.—Bids will be received here until 11 a. m., Dec. 28, for constructing approximately 450 sq. yds. of macadam road, with concrete curb and gutter, at this post. Plans, specifications, blanks and information furnished on application to the Construction Quartermaster.

JACKSONVILLE, FLA.—Bids will be received by the Board of County Commissioners of Duval County, at their office in the court-house, Jacksonville, until 9.30 a. m., Dec. 23, for resurfacing with rock, bituminous or asphaltic binder, Main St., from the city limits to Woodlawn Ave., and Woodlawn Ave., from Main St. to Talleyrand Ave.; St. Johns Ave. (Lake shore drive), from city limits to McGirts Creek. For grading and paving with vitrified curb and vitrified bricks Panama Road, from Phoenix Park to Whittaker Ave.; also Hendricks Ave., Landon Ave., from St. Johns Ave. to the Mandarin Road. For grading and curbing with wood curb and paving with shell, 64th St., from St. Johns Ave. (Ortega Road) to old Orange Park Road. For grading Lake Shore Boulevard, from old Orange Park Road to the Middleburg Road. F. J. Hyde is Chn. of Bd.

BIRMINGHAM, ALA.—The Street Committee has awarded the following contracts to the SOUTHERN BITULITHIC CO.: First Ave., from 18th St. to 21st; 19th St., from First Ave. to Third; Second Ave., from 19th St. to 21st, $53,100; 23d St., from Ave. F to Magnolia, and Eighth Ave., from 20th to 28th St., $29,170 and $41,895; 21st St., from Ave. F and Ave. H, Ave. H, from 21st to 22d St.; 22d, from Ave. H to Magnolia; Ave. J, from 21st to 22d St., and 21st St., from Ave. J to Magnolia, $25,221 and $45,020; Ave. I, Ensley, $15,643; Park Ave., from 19th to 22d st; 20th St., from Park Ave. to Eighth, $15,475.

BIRMINGHAM, ALA.—Asphalt paving is to be laid on 18th St. instead of brick as originally planned. Bids will soon be received. Maury Nicholson is City Engr.

SELMA, ALA.—We are officially advised that the contract to grade and gravel 32 miles of public highway in Dallas County has been awarded to NEWELL & BRADFORD, of Birmingham.

GULFPORT, MISS.—The City Council at a recent meeting let the contract for 10,000 sq. yds. of sidewalks to J. B. SILVER & SON, of Alliance, Ohio.

*PADUCAH, KY.—Bids will be received by the Board of Public Works until 3.30 p. m., Jan. 16, for the construction of concrete sidewalks, granite curbing, concrete gutters and driveways and cast-iron drain pipes on various streets, list of which is given in advertisement in this issue. L. A. Washington is City Engr.

CANTON, OHIO.—The city of Canton is to spend $119,000 in paving the road leading out of the city, towards Akron, according to action taken by the officials of the municipality and Stark County. Six miles of the work will be done at the expense of the county and townships adjacent to the improvement, and the other ten miles under the state aid law. Work will be started in the spring. P. H. Weber is City Engr.

COLUMBUS, OHIO.—Preliminary proceedings have been completed by the City Solicitor for the improvement of Mound St., from the Viaduct over the Toledo & Ohio Central Ry. and the Hocking Valley Ry. tracks to Central Ave. The Council will now proceed with the necessary legislation.

GREENVILLE, OHIO.—Bids were opened, we are officially advised, at the office of the County Commissioners on Dec. 14 for the improvement of the Jaysville and Sampson road in Darke County, as follows: EZRA BAKER, of Arcanum, Ohio, Carbo-Via, $8,894 (awarded contract); Ezra Baker, Standard asphaltum, $8,394; E. & G. Alexander, Standard asphaltum, $8,942; Carbo-Via, $9,250; Fishbach, Appenzeller, Tejan & Karsch, Carbo-Via, $9,275; Standard asphaltum, $9,800; Tarvia, $9,270; Indian asphalt, $9,050.

BEECH GROVE, IND.—E. C. Martin, Town Clk., will receive bids until 8 p. m., Jan. 3, for the construction of a highway including a parkway therein from Eleventh Ave. in Beech Grove to the city limits of Indianapolis.

WABASH, IND.—The Commissioners of Wabash County will receive bids until 1 p. m., Jan. 3, for the construction of the following macadamized roads: The M. Kilty road in Chester Township, 2½ miles in length, and the Sharp road in Chester Township, three miles in length. J. P. N[illegible]ger is County Audr.

FOWLER, IND.—The Commissioners of Benton County will receive bids until 1 p. m., Jan. 2, for the construction of the following stone roads: The Kirkpatrick [illegible], the Shonkwiler road and the Cooley road, all in York Township, each road to be graded to a width of 25 ft. and the same to be paved with first-class stone to the width of 9 ft. and to the depth of 10 ins., including [illegible], culverts and bridges the entire length of a little less than three miles in each road. Lemuel Shipman is County Audr.

DELPHI, IND.—The Commissioners of Carroll County will receive bids until noon, Jan. 2, for grading, graveling, draining and bridging complete, the Campbell road in Jackson Township. M. G. Haun is County Audr.

BLOOMINGTON, IND.—Bids will be received by the Commissioners of Monroe County until 2 p. m., Jan. 2, for the improvement of a public highway in Van Buren Township, known as the J. W. [illegible]unger road. Horace Blakely is County Audr.

MADISON, IND.—The Commissioners of Jefferson County will receive bids until 1 p. m., Jan. 3, for the construction of a macadamized road, 2½ miles in length, in Madison Township, known as the Metez[illegible] road. Estimated cost, $5,714. Gaylord F. [illegible]rozier is County Audr.

WASHINGTON, IND.—The Commissioners of Daviess County will receive bids until 10 a. m., Jan. 3, for the construction of two gravel roads in Barr Township. Thomas Nugent is County Audr.

HUNTINGTON, IND.—The Commissioners of Huntington and Wells Counties will receive bids until 10 a. m., Jan. 4, for the construction of the Thomas or county line gravel road. John W. Weaver is County Audr.

LAPORTE, IND.—The Commissioners of Laporte County are asking for bids until 10 a. m., Jan. 5, for the construction of 14,932 ft. of macadamized road in Scipio Township. Charles H. Miller is County Audr.

LOGANSPORT, IND.—We are officially advised that the following contracts have been awarded for constructing two gravel roads, one in Harrison Township and the other in Boone Township: BARNES & GRAUEL and WALTER GERTOR, both of Logansport.

MARTINSVILLE, IND.—The Commissioners of Morgan County will receive bids until 2 p. m., Jan. 3, for the construction of highway improvements in Adams Township. B. E. Thornburgh is County Audr.

MENOMONIE, WIS.—At a recent meeting of the Common Council it was decided to pave Wilson Ave., Third and Sixth Sts. during the next summer.

LINCOLN, NEB.—Bids are asked by H. E. Wells, County Clk., until 2 p. m., Dec. 28, for grading North 14th St., from the end of the paving to and extending north to Harrison St.

JEFFERSON CITY, MO.—We are officially advised that the contract to pave 1,700 sq. yds. with Tarvia has been awarded to JOSEPH POPE, of Jefferson City. Bids were received on Dec. 5.

SPRINGFIELD, MO.—The following bids were received by the City Council on Dec. 6:

Rackliffe-Gibson Construction Co.—Paving with Hassam, patented, class B, on Commercial St., from Grant St. to Euclid Ave., $1.75 per sq. yd.; paving with Hassam on Mt. Vernon St., from Jefferson to Campbell Sts., $1.75 per sq. yd.; paving with Hassam on Commercial St., from Campbell to Lyon Sts., $1.75; on Commedcial St., from Lyon to Grant Sts., $1.75 per sq. yd.

Jarrett Construction Co.—For concrete curbing on Billings St., from Phillips St. to Grand Ave., 40 cts. per lin. ft.; 4-ft. cement sidewalk on both sides of Calhoun St., from Broad St. to Frisco right-of-way, at 45 cts. per lin. ft. and 15 cts. per cu. yd. for grading.

The Will F. Plummer Co.—For second-class brick pavement on Commercial St., from Euclid Ave. to Broad St., at $1.73 per sq. yd.

E. C. Hubbard—For first-class cement sidewalk on both sides of Calhoun St., from Broad St. to Frisco right-of-way, at 44 cts. per lin. ft. and 20 cts. per cu. yd. for grading.

J. Stahl—For concrete curbing on Billings St., from Phillips St. to Grand Ave., at 42 cts. per lin. ft.; for first-class 4-ft. sidewalk on both sides of Calhoun St., from Broad St. to Frisco right-of-way, 48 cts. per lin. ft. and 25 cts. for grading.

H. Proserpi—For concrete curbing on north side of East Elm St., from National Boulevard to Frisco right-of-way, at 39 cts. per lin. ft.

F. C. Page—For concrete curbing on north side of East Elm St., from National Boulevard to Frisco right-of-way, at 38 cts. per lin. ft.; for first-class 5-ft. sidewalk on west side of Campbell St., from Olive to Mill St., at 50 cts. per lin. ft.

T. L. Calloway—For 5-ft. first-class cement sidewalk on west side of Campbell St., from Mill St. to the south line of the Hodnett property, at 45 cts. per lin. ft. and 25 cts. per cu. yd. for grading.

AUSTIN, TEX.—The following bids have been received by the City Commissioners for constructing concrete sidewalks and curbing on Congress Ave., commencing at the Colorado River bridge and continuing to the capitol gates on Eleventh St.: Julius Brueggerman, 12 cts. per sq. ft. for sidewalks and 20 cts. per lin. ft. for curbing; Knox T. Johnson and W. Maufrais, 12 cts. and 25 cts.; John McDonald, 11¾ cts. and 20 cts. John O. Johnson is City Clk.

AMARILLO, TEX.—At a recent meeting of the City Council it was decided upon to pave portions of the following streets: Polk, Taylor, Third, Fourth, Fifth and Sixth, about two miles in all.

GALVESTON, TEX.—We are officially advised that the contract to pave the Sea Wall Boulevard, bids for which were received on

Dec. 5, has been awarded to KELSO & VAUT[illegible]N, of Galveston, as follows: 5,400 sq. yds. of 10-in. retaining curb, at 41 cts. a sq. yd.; 5,500 sq. yds. of sidewalk curbing, at 41 cts. a sq. yd.; 9,300 sq. yds. of cement sidewalks, at $1.18 a sq. yd., and 300 lin. ft. of vitrified drain pipe, at 25 cts. a lin. ft. John S. Murch is County Audr.

ORLAND, CAL.—The Secretary of the Interior has awarded the contract to HARD BROS., of Concord, for the grading work on the distribution system, Orland irrigation project. The work involves the excavation of approximately 58,000 cu. yds. of material. The contract price is $10,738.

CORONADO, CAL.—The following bids were submitted to the City Trustees for improving approximately three miles of streets. The work consists of the grading and paving of A, B and C Aves.: H. G. FENTON, A Ave., $17,058; B Ave., $23,398; C Ave., $18,819; total, $59,275 (awarded contract). James M. Curtis, Los Angeles, A Ave., $19,295; B Ave., $26,463; C Ave., $21,618; total, $67,376. John Engebretsen, A Ave., $19,717; B Ave., $25,970; C Ave., $22,004; total, $67,692.

LOS ANGELES, CAL.—Harrison Gray Otis, M. H. Sherman, O. F. Brant, Harry Chandler and H. F. Whitley have awarded a contract to the BARBER ASPHALT PAVING CO., Central Bldg., for the labor and material for building, grading, curbing and paving a boulevard 1½ miles in length, consisting of two roadways, each 28 ft. wide (one roadway to be paved with asphaltic concrete and the other with asphalt macadam) in the Rancho Ex-mission of San Fernando, near Lankershim. Amount, $28,000 per lin. mile.

Homer Hamlin, City Engr., has presented to the City Council an ordinance of intention for the improvement of two miles of streets in the southwestern part of the city. Ordinance calls for the grading and paving with asphalt and vitrified brick, the following streets: Washington St., from Normandie Ave. to Western Ave.; Western Ave., from Washington St. to Adams St.; Oxford Ave., from Washington St. to Hobart Boulevard; Hobart Boulevard, from Washington St. to Adams St.; Harvard Boulevard, from Washington St. to Hobart Boulevard; 25th St., from Harvard Boulevard to La Salle Ave.; 21st St., from La Salle Ave. to Western Ave.; 22d St., from La Salle Ave. to Western Ave.; La Salle Ave., from Washington St. to 22d St.; Cordova St., from La Salle Ave. to Normandie Ave.

LOS ANGELES, CAL.—The County Board of Supervisors of Los Angeles County will receive bids until Jan. 3 for the improvement of Road District No. 1 near Bairdstown. Ben S. Dupuy, City Engr., of South Pasadena, has prepared the plans and details. Estimated cost, $22,000.

The Board of Supervisors will receive bids until 2 p. m., Dec. 27, for improving certain portions of El Monte-Covina Road in Los Angeles County. C. G. Keyes is County Clk.

Bids are asked until 2 p. m., Jan. 16, by the Board of Supervisors, for improving portions of Huntington Drive in Los Angeles County. C. G. Keyes is County Clk.

MERCED, CAL.—Bids will be received by P. J. Thornton, Clk. of the Board of Supervisors, until 10 a. m., Jan. 4, for the construction of three reinforced-concrete culverts to be constructed in Road District No. 1.

OCEANPARK, CAL.—JOSEPH G. BRAUN has been awarded the contract by the City Trustees for improving Waldo St., at 15.9 cts. per sq. ft. for paving, 35 cts. per lin. ft. for curb, $85 for concrete crossings, and $3.60 each for culverts.

SAN FRANCISCO, CAL.—The Board of Public Works has awarded the contract for paving, with asphalt pavement, the crossing of Brazil Ave. and Vienna St., to FLINN & TREACY.

SAN MATEO, CAL.—The Board of Trustees has awarded the contract for paving C St., from the northerly line of Third Ave. to the southerly line of Second Ave., to CLARK & HENERY CONSTRUCTION CO.

Bids will be received by Joseph B. Gordon, Clk. Bd. of Trustees, until 8 p. m., Jan. 3, for paving, with asphalt, various streets.

SOUTH PASADENA, CAL.—It is the intention of the city to pave Mission St. and South Fair Oaks Ave., with asphalt, on a 5-in. concrete base. This is the first paving to be undertaken here, it is stated.

STOCKTON, CAL.—Bids are asked by L. Frank Kuhn, Clk. of the City Council, until 5 p. m., Dec. 28, for macadamizing various streets.

PRINCE RUPERT, B. C.—The contract for grading Second Ave. has been awarded to the WESTHOLME LUMBER CO., of Victoria, at $100,000.

MANUFACTURING PLANTS.

(* *Denotes that this work is advertised in Engineering News.*)

EASTPORT, ME.—The Sea Coast Canning Co., recently organized, plans to construct a sardine canning plant here on Sea St. F. P. McCall is Vice-Pres.

BOSTON, MASS.—Bids were received as follows on Dec. 14, by Charles D. Daly, Fire Comr., for the construction of a repair shop: John F. Griffin Co., $99,416; A. Varnerin Co., Inc., $99,631; Walter A. Wentworth, $105,300; William Crane, $105,346; Woodbury-Leighton Co., $106,400; Tyson Construction Co., $106,693; C. S. Cunningham & Sons Construction Co., $107,835; J. W. Bishop Co., $108,271; McGahey & O'Connor, $110,978; Louis B. Cadario, $111,484; Jones & Meehan, $119,000; Wells Bros. Co., New York, $125,900.

EVERETT, MASS.—The National Metallic Bed Co., 20 Medford St., Boston, will construct a plant at Everett, including a foundry. E. Andrews, of the Industrial Committee of the Everett Board of Trade, secured the site. Estimated cost of structure, $10,000.

NORTH ADAMS, MASS.—The E. A. McMillin Co. plans the erection of a 2-story factory east of the present building on Chestnut St., which will double the capacity of the plant. The contract has been awarded to WHITNEY BROS.

SPRINGFIELD, MASS.—The contract to erect an addition to the foundry of the H. B. Smith Co. has been awarded to CASPER RANGER, of Holyoke. Cost, $85,000.

WOONSOCKET, R. I.—The Lafayette Worsted Co. is planning an addition to its plant, to be built next spring.

SOUTHINGTON, CONN.—H. D. Smith & Co. have awarded contracts for the proposed factory buildings to L. A. MILLER, of Meriden, and ANTHONY A. BOYCE, of Plantsville.

WILLIMANTIC, CONN.—The Willimantic Industrial Co. is being organized for the purpose of erecting a mill to be occupied by the Rossie Velvet Co., it is stated.

BUFFALO, N. Y.—George Schaaf, 547 East Utica St., has had plans completed for a factory building, 38 x 112 ft., three stories high, of brick mill construction, which he will erect at Lansing St. and the Military Road.

The general contract has been let to CHARLES W. GETTMAN, of Lackawanna, N. Y., for the erection of 2-story and basement brick factory building, 53 x 103 ft., to be erected at Florida and Jefferson Sts., by the George A. Otis Co., 818 Main St.

The William Simon Brewing Co. will add to its plant at Clinton and Emslie Sts. and N. Y. Central R. R., a 1-story and basement bottling works building, 60 x 100 ft., of brick and steel construction. Wannenwetsch & Co., 563 William St., are the Archs. Cost, $15,000.

BUFFALO, N. Y.—The Standard Oil Co., 1103 Elk St., has filed plans for 1-story brick addition to its boiler-house and brick smokestack. Cost, $11,000.

MARCELLUS, N. Y.—The Marcellus & Otisco Lake Ry. Co., John Stewart, Mgr., will erect a factory and power building, 50 x 150 ft., three stories and basement, of concrete construction, from plans prepared by James D. Meehan, Arch., of Syracuse.

ALBANY, N. Y.—James A. Shufelt plans to organize a company to build a mill, 50 x 60 ft., together with a boiler room. The capital will be $40,000.

UTICA, N. Y.—Bids were received by the State Commission in Lunacy on Dec. 14 for furnishing and installing laundry machinery at the Utica State Hospital, Utica, as follows: American Laundry Machinery Co., New York, $27,743; Troy Loundry Machinery Co., Troy, $25,873. T. E. McGarr is Secy. of Comn. and F. B. Ware is State Arch.

JERSEY CITY, N. J.—Contracts for the erection of a dairy and stable building which will be built at 51 Clifton Pl. for the Greenfield Dairy Co., 906 Harrison Ave., have been awarded as follows: Masonry, M. DEFENBROCK; carpentry, MARCUS BOLLHARDT, 10 Van Wagenen Ave. The building will be of brick, two stories in height, and 80 x 100 ft. The cost will be $40,000.

COATSVILLE, PA.—It is reported that the American Locomotive Works plans the erection of shops here, to employ 5,000 men.

ALIQUIPPA, PA.—The Jones & McLaughlin Steel Co., Ross St., Pittsburg, plans to make extensive additions to its plant in Aliquippa.

SCOTTDALE, PA.—Jesse A. Stauffer contemplates erecting a rolling mill here. J. B. Hogg, Engr., of Connellsville, will prepare plans.

TRUMBAUERSVILLE, PA.—A 3-story brick cigar box factory is planned here by Monroe Jarrett.

WILLIAMSPORT, PA.—Plans have been completed for the construction of a silk mill for Thomas Morrison & Sons. The proposed structure will house about 125 looms.

YORK, PA.—S. F. GLATFELTER has been awarded the contract to erect the proposed silk ribbon factory of Levy Bros. which will be situated at the corner of Pine St. and Boundary Ave. The contract price is $37,000 and the plant is to be completed about May 15 next. James H. McClymont, Arch., Lehmayer Bldg., prepared the plans for the structure.

BALTIMORE, MD.—Plans have been completed for the erection of a factory for the Canton Box Co. and bids will be received about Jan. 1. Wilson L. Smith, Law Bldg., is the Arch. Noted fully on Nov. 24.

BALTIMORE, MD.—The contract to erect a printing plant at Preston and Patuxent Sts. for the Simpson-Doeller Co. has been awarded to the BALTIMORE FERRO-CONCRETE CO., Glenn Bldg. It will be of reinforced concrete and stone with brick trimmings. The roofing will be slag and the floors terrazzo. Otto G. Simonson, Arch., American Bldg., prepared the plans. Estimated cost, $150,000.

CURTIS BAY (Baltimore post-office), MD.—Plans have been completed by J. E. Laferty, Arch., 11 East Pleasant St., Baltimore, for the construction of a plant for the Baltimore Siegwart Beam Co., at Curtis Bay. The building will be of corrugated iron, with reinforced-concrete foundation and will be fireproof.

BALTIMORE, MD.—A lithographing and printing plant is to be erected on the site of the old State Normal Colored School, Saratoga and Courtland Sts., by the Owners' Realty Co., Charles W. Hurst, Pres. The building now occupying the ground will be razed and a new structure erected. It will be three stories and basement, of concrete, stone and brick, and will cost $25,000 for construction alone. C. W. Price, Arch., has completed the drawings. JOHN K. McIVER has been awarded the contract to build it. When completed the building will be occupied by H. Gamse & Bros., lithographers and printers.

BALTIMORE, MD.—Plans have been completed and bids are asked until Dec. 22, for the erection of a 2-story and basement bakery, 58 x 85 ft., for the City Baking Co. It will be a non-fireproof structure of steel, brick, wood and concrete. John Freund, Jr., Arch., 210 East Lexington St., prepared the plans. Cost, $15,000.

CLAREMONT, VA.—The Claremont Carbonate & Cement Co., Claremont, incorporated with $60,000 capital stock, plans to build a plant with a daily capacity of 50 tons of lime and to manufacture cement, fertilizer, etc.

PETERSBURG, VA.—The Southern Timber & Land Co., Inc., plans to construct a band saw mill here. J. T. Simonson & Co., of Muskegon, Mich., will erect the structure.

ROANOKE, VA.—The Blue Ridge Overalls Co., of Roanoke, will erect a factory in the northeast section of the city, it is stated.

The Roanoke Bridge Co. has purchased three acres of ground from the Virginia Ry. Co., for the purpose of erecting a bridge building plant. The structure and machinery will cost about $30,000.

ROSE HILL, N. C.—Maury Ward and E. McN. Carr, Rose Hill, are interested in establishing a $100,000 fertilizer factory, it is stated.

SPRAY, N. C.—The American Warehouse Co., of Spray, will build an extensive addition to provide further facilities for finishing cotton piece goods. This addition will be 300 ft. long and 175 ft. wide, three stories high. This company is capitalized at $1,400,000 and it operates 330 knitting machines, steam power plant, etc., employing about 300 operatives. Its finishing equipment includes 30 napping machines. Construction will begin soon.

CHERAW, S. C.—L. L. Prince, 106 South Main St., St. Louis, Mo., is planning the erection of a cotton mill in Cheraw.

NEWBERRY, S. C.—The contract to erect the Oakland Cotton Mills here has been awarded to the FISKE-CARTER CO., of Spartanburg. Col. Walter H. Hunt is Pres. of the mills. The Oakland Mills will be located on the fair property in the northern suburbs of the city. This property contains 316 acres, and is just outside the corporate limits of the city. The main building will be four stories in height, 216 ft. long and 130 ft. wide. The warehouses and engine-room will be separate buildings. The capital is $1,500,000 and the cost of construction will be $400,000.

SPARTANBURG, S. C.—The Willis-Ladshaw Construction Co. has been organized and plans to build a plant to manufacture artificial stone and concrete work, brick, tile, sewer pipe, fence posts, window sills and caps, sidewalks and curbing. The offices of the company are in the Cleveland Bldg. W. N. Willis is Pres.

JACKSONVILLE, FLA.—Plans are being prepared for rebuilding the Red Rock plant, which was destroyed by fire recently. The new structure will be of brick. R. C. White is Gen. Mgr.

NEW ORLEANS, LA.—A permit has been granted to the American Chicle Co., 425 Decatur St., to build a 3-story brick factory. Estimated cost, $50,000.

SHELBYVILLE, TENN.—W. J. McGill and associates are planning to establish a cotton factory here.

AUBURNDALE (Toledo post-office), OHIO.—The National Supply Co. plans to double the size of the present plant. When completed, the structures will cover 15 acres of land.

CINCINNATI, OHIO.—Estimates are being received by the Kroger Grocery & Baking Co. for an 8-story addition to its plant on Florence Ave. Cost, $100,000.

CLEVELAND, OHIO.—The contract to erect a factory, of brick, for the National Woolen Co. has been awarded to HENRY G. SLATMYER, 203 Lakeside Ave. It will be two stories high, of slow burning construction. Cost, $50,000. Noted on Dec. 1.

SANDUSKY, OHIO.—Bids are being received by the Osborn Engineering Co., Cleveland, for the construction of a factory, 60 x 320 ft., for the Suspension Roller Bearing Co. It will be a 1-story structure, of brick, wood and concrete construction. Cost, $20,000.

COLUMBUS, OHIO.—Bids will be received until Dec. 27 for the construction of a plant for the Felber Biscuit Co. on Grove St. Plans and specifications were prepared by Richards, McCarty & Bulford, The Ruggery.

MT. VERNON, OHIO.—The Mt. Vernon Window Glass Co. plans to rebuild the plant in South Vernon, recently destroyed.

NORWOOD, OHIO.—Harry T. Scully has purchased a lot, 50 x 100 ft., on the north side of Lexington Ave., and plans to construct a 1-story factory for manufacturing molders' tools.

TOLEDO, OHIO.—The Allen Mfg. Co., 2014 Adams St., plans the erection of a factory on Detroit Ave., south of Central Ave. The proposed structure is to be 50 x 100 ft. and three stories high. Plans for the building were drawn by Langdon & Hohly, Archs., Nicholas Bldg. The contract has been awarded to CORNELIUS HULL.

AUBURN, IND.—The Garritt City Elevator Co., Thomas Carson, Pres., will soon receive bids for the erection of a grain elevator on the site of the elevator recently wrecked by fire.

HUNTINGTON, IND.—Bids will be received at once for steel work on the proposed plant for the Orton & Steinbrenner Co., 1806 Borland Block, Chicago, Ill.; for the remaining work bids will be received about Dec. 24. It will be a 1-story structure, 80 x 160 ft., part fireproof, with brick walls, steel frame and wood floors. Estimated cost, $58,000.

PORTLAND, IND.—J. A. Long & Co. are preparing to ask for bids for the construction of a packing house on the site of the plant recently destroyed by fire.

BIG RAPIDS, MICH.—J. B. Martin, of Big Rapids, has let the following contracts for the 2-story and basement factory, 112 x 42 ft., for the Falcon Mfg. Co., of Big Rapids: Masonry, to VIDONI & BUSH; carpentry, to W. C. CHURCHILL, both of Big Rapids. The architect will do heating by day work.

CONSTANTINE, MICH.—The Farmers Elevator & Coal Co., Charles H. Brown, Secy., Constantine, are having plans prepared and will receive estimates soon on a 3-story warehouse to be located in Constantine.

DETROIT, MICH.—Albert Danielson, Kalamazoo, has nearly completed plans for the 2-story factory addition to the plant of the Detroit Sulphite Fiber & Paper Co., H. H. Eberstein, Secy., Detroit, and will be ready for estimates some time in January. Cost of addition, $250,000.

The Puritan Machine Co., C. O. Dunk, Mgr., 51 Tenth St., has awarded the general contract for the proposed factory to H. R. HABERKORN, 169 Seward Ave., Detroit. The plant will be heated by steam.

GRAND RAPIDS, MICH.—The Wolverine Pearl Button Co., C. T. Harvey, Pres., of Grand Rapids, is having plans prepared for a 2-story and basement factory building, to be constructed at Canal and Ann Sts., in the early spring.

MUSKEGON, MICH.—Robinson & Campau, Housman Bldg., Grand Rapids, are preparing plans for a 4-story factory, 100 x 70 ft., for the Continental Motor Mfg. Co., B. F. Toby, Secy., Muskegon. The plant is to be constructed of brick and reinforced concrete with a composition roof, structural iron and concrete floors. Cost, $30,000.

PONTIAC, MICH.—The Pontiac Motor Cycle Co., of Pontiac, has let the general contract for the 2-story and basement Administration building in connection with the plant at Pontiac, to ROY HABERKORN, 169 Seward Ave., Detroit. Steam heating is also included in this contract. Cost, $25,000. Noted on Dec. 1.

CHICAGO, ILL.—The Lorenz Knit Goods Mfg. Co., 606 Belmont Ave., plans to erect an addition to its plant which will cost about $35,000. The structure will be four stories high and of fireproof construction. The company is also adding two additional stories to its present plant, while new machinery, totaling $20,000, will be installed.

The Joseph Jensen Co., manufacturers of seamless hosiery, golf vests and sweaters, is to erect a new building to be devoted exclusively to the wholesale end of its business. The structure will be located at 1739-1741 North Western Ave. and will cost about $25,000. The concern will continue the retail end of the business at 817 Milwaukee Ave.

DANVILLE, ILL.—The R. W. Furnas Ice Cream Co., Washington Ave. and North St., plans to erect a plant on a plot purchased some time ago at the northwest corner of Washington Ave. and Seminary St. Construction will begin at once. Cost, $10,000.

APPLETON, WIS.—The Imperial Knitting Co. has filed articles of incorporation, the capital stock being $10,000. This concern will take over the plant operated by Herman Bach at Appleton and will install additional machinery. Operations will probably be started the first of the year. The incorporators of the new company are: Herman Bach, G. R. Wettengel and Mark Catlin.

MARINETTE, WIS.—The Buick Automobile Co. will erect a garage, salesroom and repair shop in this city, to accommodate 30 cars.

MILWAUKEE, WIS.—Plans for a malting plant to be erected by the Hansen Malting Co., on 33d Ave., between Burnham St. and Lincoln Ave., are being prepared by F. L. Bader, Arch. The buildings will be fireproof and will have a capacity of 1,000,000 bushels.

F. W. Andree, Arch., Cawker Bldg., is completing plans for an ice cream factory to be erected by the Adler Ice Cream Co., at East North Ave. and Cambridge St. It will be two stories high with a basement, 50 x 70 ft. of reinforced-concrete construction. Cost, $25,000.

ST. PAUL, MINN.—Plans are being drawn by Buechner & Orth, Archs., Manhattan Bldg., for the construction of a 2-story brick addition to the plant of the Schurmeier Motor Car Co., at Griggs St. and University Ave. It will be 50 x 200 ft. Estimated cost, $20,000. The officers are: F. I. Whitney, Pres.; H. H. Bigelow, Vice-Pres.; M. J. Osborn, Secy., and Eli S. Warner, Treas.

OMAHA, NEB.—The Omaha Structural Steel Works, 48th and Leavenworth Sts., are erecting a steel and brick plant, 288 x 75 ft. The company will soon be in the market for a full line of tools for bridge and structural work; also for pattern and blacksmith shop and for office. John W. Towle is Pres. The estimated cost of the structure is $40,000, and equipment, $30,000.

KANSAS CITY, MO.—Plans are being prepared for the construction of a gasoline engine factory in the Blue Valley. A site has been purchased at the northeast corner of Crystal Ave. and Hughes St., 225 x 173 ft. A. W. Calkins, Pres., of the Kansas City Pump Co., 1308 West Tenth St., is promoting the project.

AUSTIN, TEX.—C. B. Atterbury, of Hillsboro, Ill., has under consideration the establishment, in Austin, of a factory for the manufacture of certain lines of farm machinery.

BROWNSVILLE, TEX.—L. C. Hill, of Brownsville, plans to erect a sugar refinery of 600 tons daily grinding capacity. A 15-mile standard gauge railroad is to be built in connection with the plant. Estimated cost, $600,000.

CUERO, TEX.—Citizens of this place are promoting the reorganization of the company owning the cotton mill here, with the view of making enlargements and placing the enterprise on a better footing. The mill's present capacity is 5,000 spindles. It is proposed to add more building room and install additional equipment. Judge S. F. Grimes, of Cuero, as Trustee, has charge of the reorganization and improvement plans.

GOLIAD, TEX.—The Progressive League of Goliad is arranging to offer inducements for the establishment of a canning factory, broom factory and steam laundry here.

SOMERVILLE, TEX.—The Gulf, Colorado & Santa Fe Ry. Co. will erect a brick machine shop and addition to the 10-stall round-

house at Somerville. New equipment will be installed in the machine shop building when it is finished. F. Merritt, of Galveston, is Ch. Engr.

TEXARKANA, TEX.—It is announced that the Hubbard Mfg. Co. plans to rebuild its hoop mill at this place, which was recently destroyed by fire.

YOAKUM, TEX.—The Southern Marble & Stone Co. will install a stone-cutting plant here. J. Lyons is Pres.

MUSKOGEE, OKLA.—The Sunray Stove Co., of Delaware, Ohio, has made arrangements with the Muskogee Industrial Development Co., whereby the former will erect a 2-story factory, 50 × 100 ft. O. D. Hunt is Gen. Mgr. Estimated cost, $50,000.

FORT COLLINS, COLO.—A plant is to be established here, it is stated, by Samuel J. Jackson, of Fort Collins, who recently invented a machine to pull and top beets.

MONTE VISTA, COLO.—The contract to erect a 600-ton factory here for the San Luis Valley Beet Sugar Co., has been awarded to the DYER CO., New England Bldg., Cleveland, Ohio. When completed, the company will have five plants. W. J. Galligan, State Treas., is Pres.

SPOKANE, WASH.—The Paradise Valley Fruit Land Co., Lindelle Bldg., recently purchased an additional 200 acres of land from J. P. Christianson, for the purpose of erecting a sawmill in the center of the tract and converting the timber into building lumber. James Booth is Pres., and W. D. Myer, Mgr.

EAGLECLIFF, WASH.—Matthews & Loughlin have purchased the old Bay View Cannery at Eaglecliff, and are making arrangements to erect a manufacturing plant that will include a sawmill, shingle mill, box factory and barrel factory.

PORTLAND, ORE.—Improvements, including the erection of a roundhouse on the west side of the river, the erection of a roundhouse, repair shops and other modern buildings on the east side of the river, and involving an aggregate expenditure of $1,000,000, are planned by the Southern Pacific Ry. Co., for this city for the next 13 months, it is stated. J. P. O'Brien, of Portland, is Gen. Mgr.

CALESICO, CAL.—At a meeting of parties interested in the proposed creamery, the following directors were chosen: Sidney McHarg, H. M. Bump, B. Vilor, T. T. Miller, J. M. Edmunds. The contract for building has not been awarded, but details are now being arranged and actual construction will begin soon. The creamery is to be erected in connection with the cold storage plant to be erected by W. F. Holt, on a lot near the Southern Pacific Ry. Co.

FRESNO, CAL.—THOMAS DAY & SONS, of San Francisco, have been awarded the contract for the construction of a refrigerating plant for the Western Meat Co., of Fresno. Three buildings will be erected. The refrigerating plant will be of brick, and will cost $15,000. Henry L. Day is Supt. of Construction, Hotel Segnora, Fresno.

LOS ANGELES, CAL.—MARTIN MADDEN, 1448 Bellevue Ave., has secured the contract, at $55,000 for the erection of a 2-story brick building for T. J. Stevens, to be erected at 456 East Third St., and to be used as an ice cream factory. It will be 34 × 86 ft., with a concrete foundation, brick walls, steels beams and girders, cement floors and rubber roof. A freight elevator, skylights, metal doors, etc., will be installed.

LOS ANGELES, CAL.—We are officially advised that bids will be received until Feb. 1, for the erection of woodworking mills. There will be twelve buildings, one and two stories high, of brick, on a 10-acre tract of land. Ernest McConnell is the Arch. The owner is the Los Angeles Investment & Trust Co., 337 South Hill St. The estimated cost of the buildings is $350,000, and equipment, $150,000.

The Union Lithograph Co., of San Francisco and Los Angeles, has purchased a site on East Seventh St., between Mateo and Santa Fe Aves., and will erect a plant.

SAN DIEGO, CAL.—The Seven Grain Food Co. has been incorporated here and contemplates erecting a flour mill. A. L. Chase, C. A. Lyman, R. Hynes, T. D. Anderson and E. E. Rodabaugh are interested. Capital stock, $50,000.

SANTA ANA, CAL.—A company is being organized here by James Irvine, James McFadden, M. M. and A. J. Crookshank and R. T. Harris, to build a sugar factory at Delhi, about three miles south of Santa Ana. The capital will be $1,000,000, it is reported.

SAN DIMAS, CAL.—The San Dimas Orange Growers' Association will rebuild the packing house, recently burned. Plans are now in preparation and work will be rushed as soon as bids can be taken. The loss is estimated at $70,000.

PALO ALTO, CAL.—The Barr Bros.-Rogers Cutlery Co., of Eugene, Ore., plans to locate a plant here. Arrangements have been made with the Ravenswood Investment Co. for the site. Work will start soon.

SAWTELLE, CAL.—Bids will be received until Jan. 7, by E. W. Moore, Treas. of the Pacific Branch, N. A. D. V. S., for furnishing and installing laundry machinery in the Soldiers' Home.

WINNIPEG, MAN.—The Canada Cement Co., Ltd., of Montreal, Que., has purchased property here and plans to erect a mill building in the spring.

The Manitoba Cold Storage Co., of Winnipeg, is having plans prepared for a 110 × 100 ft., 10-story brick and stone cold-storage plant.

MONTEREY, MEX.—L. F. Bennett and George F. Baker, of Oklahoma City, Okla., will erect a factory at Monterey or some other point in this part of Mexico for the manufacture of crates and boxes, it is stated.

MISCELLANEOUS CONTRACTS.

*(*Denotes that this work is advertised in Engineering News.)*

U. S. RECLAMATION SERVICE.—All news concerning canal and irrigation projects, etc., will be found under Water Supply—Irrigation.

ABOLISHMENT OF GRADE CROSSINGS. —Salem, Mass.—The Legislature has been petitioned to take up the matter of abolishing grade crossings in this city, the erection of a new station, and the electrification of the steam roads within the city limits.

FIRE HOSE.—Boston, Mass.—The following bids were opened on Nov. 30, by Supply Department, for 2,500 ft. of 2½-in. rubber hose: Boston Belting Co., $1 per ft., 4-ply. Boston Woven Hose & Rubber Co., 98 cts., Union Brand; $1.08, Colonial Brand. Enterprise Rubber Co., $1.15. C. C. C. Fire Hose Co., 94 cts., 4-ply. Combination Ladder & Truck Co., $1.23, Goodrich Anchor Brand; $1.49, White Anchor Brand. Gutta Percha & Rubber Mfg. Co., $1.75, Baker Fabric; $1.25, Maltese Cross Brand. Also for 1,000 ft. of 3½-in. cotton hose: Boston Belting Co., $1.25, 3-ply. Boston Woven Hose & Rubber Co., $1.08, 4-ply. Eureka Fire Hose Mfg. Co., $1.60; Paragon Brand, $1.40. Peerless C. C. C. Fire Hose Co., $1.24, Canton Brand. Contract was awarded for 1,250 ft. 2½-in. each to the COMBINATION LADDER & TRUCK CO., and GUTTA PERCHA & RUBBER MFG. CO.; 600 ft. 3½-in. to C. C. C. FIRE HOSE CO., and 400 ft. to EUREKA FIRE HOSE MFG. CO.

*DREDGING.—Providence, R. I.—Bids were received as follows by Lieut.-Col. J. G. Sanford, Corps Engrs., U. S. A., Newport, R. I., on Dec. 17, for dredging in Providence River and Harbor, R. I.: (a) dredging per cu. yd., (b) boulders per cu. yd.: Taylor Dredging Co., Jersey City, N. J., (a) 14.8 cts., (b) $5; Eastern Dredging Co., Boston, Mass., (a) 10.6 cts., (b) $10; G. H. Braymann & Bros., Toledo, Ohio, (a) 12 cts., (b) $12; P. Sanford Bros, Inc., Jersey City, (a) 8.3 cts., (b) $10; J. S. Packard Dredging Co., Providence, R. I., (a) 8.1 cts., (b) $10; Coastwise Dredging Co., Norfolk, Va., (a) 7.54 cts., (b) $5; Morris & Cumings Dredging Co., New York, (a) 9.4 cts., (b) $5; Columbia Dredging Co., New York, (a) 8.9 cts., (b) $5; Daly & Hannon Dredging Co., Ogdensburg, N. Y., (a) 10 cts., (b) $6.

COMFORT STATION.—Hartford, Conn.—The city is considering the construction of a public comfort station. Estimated cost, $25,000.

PIER.—New Haven, Conn.—The plans for the new passenger station of the New York, New Haven & Hartford R. R. Co., in New Haven, include the construction of a large new pier, with freight sheds and a basin large enough to accommodate all the company's passenger and freight steamers and other water traffic, directly adjoining the tracks in front of the station. Unless a recession in business delays the commencement of work on the new station in the spring, work on this pier will be begun at the same time. When the pier is completed, Belle dock, where all the water carriers of the company have landed, and to which steamboat expresses have been shunted after reaching the city, it is reported, will be abandoned. Edward Gagel is Ch. Engr., New Haven.

COMFORT STATION. —New York, N. Y.—Bids will be received by the Park Board, Dept. of Parks, until 3 p. m., Dec. 29, for all labor and materials for the erection and completion of a comfort station, located in McKinley Park, Boro. Brooklyn, City of New York. Charles P. Stover is Pres. Bd.

POST-OFFICE EQUIPMENT. —New York, N. Y.—Bids were received as follows, on Dec. 15, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for equipment for the New York City post-office: Elevator equipment: Otis Elevator Co., 17 Battery Pl., New York, $132,940. Pneumatic door-operating plant: Burdette-Browntree Mfg. Co., Chicago, $42,400; Otis Elevator Co., New York, $37,400.

BRICK WALLS.—New York, N. Y.—Two brick walls will be built by the Pennsylvania Tunnel & Terminal R. R. Co., one on the west side of Ninth Ave., 98.9 ft. south of 33d St., to cost $3,000; the other on the east side of Ninth Ave., from 31st to 33d St., to cost $15,000. They will be 6 ft. 8 ins. high. George Gibbs is Ch. Engr., Pennsylvania Station, New York.

HARBOR LINES.—New York, N. Y.—The plan of Calvin Tomkins, Comr. of Docks, New York, for the improvement of Jamaica Bay was discussed on Dec. 14, at a hearing by the Harbor Line Board at the Army Bldg., New York. A channel 17 miles long and 1,000 ft. wide to encircle the bay front from Rockaway Point and two canals are included in the plans. Objections were raised to the change in pier line made necessary by the improvement on the ground that the sewer system there would have to be changed. It was also pointed out that if the dredging of Garretson's Creek were carried out as suggested in the plan for a canal the city will have to face a condition like that of Gowanus Bay. Fred Reid, of the Waterways League of Greater New York and Long Island, presented the grievances of property owners who have settled on the bay and have been told that the improvements will take away their rights to the waterfront. The Board will decide what the harbor lines shall be without further hearings. Commissioner Tomkins will hold inquiries to determine the rights of property owners and the location of piers and bulkheads. Noted on Dec. 8.

IRON STAIRWAYS.—New York, N. Y.—Bids will be received by C. B. J. Snyder, Supt. of School Bldgs., Dept. of Education, until 3 p. m., Jan. 3, for the erection of outside iron stairways, etc., at Public Schools 14, 19, 20 and 26, Boro. of Richmond.

MARKETHOUSE WORK.—New York, N. Y. —Bids were received as follows on Dec. 19 by George McAneny, Pres. Boro. of Manhattan, for labor and materials required for replacing the present main skylights with new puttyless or other approved skylights, reconstruct small skylights and outside lantern roof, renew gutters, and leaders, and paint same on the building known as Washington Market, located on Washington, Fulton, Vesey and West Sts., Borough Manhattan: M. D. Londin, $13,475; Kelly & Kelley, $14,850; Empire Cornice Wks., $11,448; Coleman & Krause, $11,950; Keepsdry Construction Co., 162 West 27th St., New York, $9,700; Universal Skylight Co., $16,884.

Bids were also received as follows for furnishing labor and materials required for constructing and installing show windows about Washington Market, situated at Washington, Vesey, West and Fulton Sts., Boro. of Manhattan: J. Braumstein, $24,147; Wm. Werner, $23,334; J. M. Knopp, $26,850; Keepsdry Construction Co., 162 West 27th St., New York, $19,700; Concord Const. Co., $25,773; M. D. Londin, $22,850; John E. Walsh, Jr., $37,463.

BARGE CANAL.—Albany, N. Y.—J. W. COOPER, Cleveland, Ohio, has been awarded a sub-contract by the Ludington Contracting Co., for work on the Barge Canal at Albion, N. Y. The contract includes the work from the west village line east to Tanners Bridge.

BARGE CANAL, Albany, N. Y.—Bids received Dec. 20, by F. C. Stevens, Supt. Pub. Wks., on Barge Canal Contracts, as follows: Contract No. 48, Erie Canal, Section 8, for the construction of the canal from a point near the New York Central R. R. crossing at Lyons to a point near the West Shore R. R. crossing at East Newark; length, 5.75 miles. Contract No. 51, Erie Canal, Section 5, for constructing a canal feeder between Trenton Falls and Nine Mile Creek, together with a gate-house, culverts and all other work appertaining to the contract; length, 5.75 miles. Contract No. 76, Erie Canal, Section 8, for the construction of the canal from a point near the West Shore R. R. crossing at East Newark to a point about one-half mile east of Port Gibson; length, 5.77 miles. Contract No. 77, Erie Canal, Section 8, for constructing the canal from a point about one-half mile east of Port Gibson to about one-half mile west of Palmyra; length, 6.78 miles. Contract No. 80, Erie Canal, Section 1, for the construction of a dam and bulkheads across the Oswego River at Phoenix, N. Y. The bids received were: Contract No. 48: Engineer's estimate, $1,626,811: The M. A. Talbott Co., of Baltimore, Md., $1,725,151; S. Pearson & Son, Inc., 507 Fifth Ave., New York, $1,780,112; The Crowell, Sherman, Stalter Co., Cleveland, Ohio, '1,701,671. Contract No. 51: Engineer's estimate, $424,710: Lane Bros. Co., Altavista, Va., $398,835; George T. Cunningham, Utica, N. Y., $389,842; Joseph F. Stabell Co., Buffalo, N. Y., $397,905; Schnable & Quinn, 1037 Stock Exchange, Chicago, Ill., $402,446; Baker & Banker, Herkimer, N. Y., $499,536; Barge Canal Construction Co., 105 Nassau St., New York, $437,242; Coast & Interior Construction Co., Fayetteville, N. Y., $400,365. Contract No. 76: Engineer's estimate, $1,504,776: The T. A. Gillespie Co., 50 Church St., New York, '1,494,057. Contract No. 77: Engineer's estimate, $1,790,672: The T. A. Gillespie Co., 50 Church St., New York, $1,652,148. Contract No. 80: Engineer's estimate, $134,340: W. J. Burns Co., Syracuse, N. Y., $147,556; Scott Brothers, Rome, N. Y., $146,604; Walter Bradley, Fulton, N. Y., $117,391.

AIR COMPRESSOR PLANT.—Pittsburg, Pa.—Bids for furnishing and installing a water power air compressor plant at Lock 1, Monongahela River, Pittsburg, Pa., will be received by Lieut. Col. H. C. Newcomer, Corps Engr., U. S. A., Pittsburg, until noon, Jan. 11.

*REBUILDING WHARVES, ETC.—Philadelphia, Pa.—Bids will be received until noon, Jan. 24, by the Light House Inspector, Philadelphia, for rebuilding wharves, retaining walls, etc., at Edgemoor Light House Depot, Del.

DREDGING.—Philadelphia, Pa.—The AMERICAN DREDGING CO., Marine and Merchants Bldg., Philadelphia, was awarded contract on Dec. 16 for dredging the Schuylkill River between Gibson Point and Point Breeze by the Dock Department. The company was the only bidder at 18 cts. a cu. yd.

HARBOR IMPROVEMENTS. —Erie, Pa. —The Harbor and Peninsula Commission of the Chamber of Commerce, on Dec. 7, took action regarding harbor improvements. Work to be done by the United States, by the state of Pennsylvania, and by the city was planned. A sub-committee consisting of Fred Lee, George R. Downs and Capt. Jeremiah Driscoll, was appointed to confer with the U. S. Engineer with reference to what he has found necessary to be done in the line of improvements to the outer harbor. This is the part of the work for which an appropriation from Congress will have to be asked. The Secretary was instructed to communicate with the dredging companies and ascertain the cost of dredging the east and west canal basins to a uniform depth of 10 ft. in order to make these basins navigable without danger of running aground. The basins are state property and an appropriation from the State Legislature will be asked.

DREDGING.—Wilmington, Del.—Bids were received as follows on Dec. 10 by Maj. R. R. Raymond, Corps Engrs., U. S. A., Wilmington, for dredging Wilmington Harbor: (a) on behalf of city; (b) on behalf of government: The Rickards Dredging Co., Philadelphia, Pa., (a) 14 cts. per cu. yd., (b) 10.4 cts.; Miner Engineering Co., Washington, D. C., (a) 12.7 cts., (b) 11.9 cts.; John L. Grim, Philadelphia, (a) 12 cts., (b) 11.7 cts.; Atlantic, Gulf & Pacific Co., New York, (a) 15 cts., (b) 12.6 cts.; American Dredging Co., Philadelphia, (a) 11.9 cts., (b) 7 cts.; Maryland Dredging & Contracting Co., Baltimore, Md., (a) 11 cts., (b) 9.6 cts.

JETTY WORK.—Wilmington, Del.—Bids were received on Dec. 17, by Maj. R. R. Raymond, Corps Engrs., U. S. A., Wilmington, for jetty construction and repairs at the mouth of the Mispillion River, N. J.: Sanford & Brooks Co., Baltimore, Md., $15.90 per lin. ft.; $3.50 per cu. yd. for repairs, stone in place; Latta & Terry Construction Co., Philadelphia, Pa., $13.80 and [illegible]; Wilson M. Vinyard, Milford, Del., $10.70 [illegible] $1.65; Tatnall-Brown Co., Wilmington, [illegible].45 and $4.00.

PNEUMATIC DRILLING MACHINES, BRASS, ETC.—Washington, D. C.—Bids will be received until Dec. 27 by the [illegible]reau of Supplies and Accounts, Navy Dept., Washington, for furnishing at the navy ya[rd] the following supplies: Brooklyn, N. Y., Schedule 3178, six pneumatic drilling machi[nes]; Schedule 3185, 29 ¼-KW. transformers; Schedule 3179, 3,400 lbs. sheet brass; Sche[dul]e 3184, 30,000 lbs. manganese bronze; Sche[dul]e 3180, 8,500 lbs. cold rolled steel; Sche[dul]e 3180, 24,000 lbs. rivet steel and 21,700 [lb]s. galvanized sheet steel; Schedule 31[illegible] 26,000 ft. w.-i. or steel pipe. Washingto[n], D. C.—Schedule 3176, 75,000 lbs. hot rolled [or] forged steel. Boston, Mass., Schedule [illegible], miscellaneous pipe fittings; Schedule [illegible]3, 420 brass unions and 84 brass gate va[lves].

REVENUE CUTTERS.—Washingt[on], D. C. —No bids were received on Dec. [illegible] by the Revenue Cutter Service, Treasury Dept., Washington, for bids on two revenue cutters.

BATTLESHIP. — Washington, D. [C.] — The Acting Secretary of the Navy, on Dec. 20, awarded to the NEWPORT NEWS SHIPBUILDING & DRY DOCK CO., Newport News, Va., the contract for the construction of the battleship "Texas," at $5,830,000. Bids were opened on Dec. 1. Noted on Dec. 15.

STEAMER.—Reidville, Va.—The HARLAN & HOLLINGSWORTH CORPORATION, Wilmington, Del., has secured the contract for the construction of a fishing steamer for the C. E. Davis Co., Reidville. The new craft will have a wooden hull and will be 155 ft. long, 23 ft. beam and 12-ft. depth of hold. The building of the hull has been sublet to the JACKSON & SHARP Co. plant of the American Car & Foundry Co.

CANAL.—Norfolk, Va.—The Farmers' Mfg. Co., Norfolk, is considering the construction of a canal to drain 10,000 acres of land in Norfolk County for celery growing.

SEA WALL.—Morehead City, N. C.—Bids will be received until Jan. 2 by the city for the construction of a reinforced-concrete sea wall. The work will require 1,200 bbls. of cement, crushed stone, etc. Estimated cost, $14,000. H. C. Patterson, New Berne, N. C., is Engr.

STEEL, FORGINGS, ETC.—Charleston, S. C.—Bids were received as follows on Nov. 24 by Capt. E. M. Adams, Corps Engrs., U. S. A., Charleston for steel, forgings, castings, etc., for Granby Dam, Congaree River, S. C.: Price per lb. for (a) structural steel; (b) forgings; (c) bolts, etc.; (d) iron castings; (e) totals: Independent Bridge Co., Pittsburg, Pa., (a) 4 cts., (b) 5.85 cts., (c) 3.375 cts., (d) 2.85 cts., (e) $16,030; Heppenstall Forge & Knife Co., Pittsburg, Pa., (b) 4.7 cts., (e) incomplete; American Bridge Co. of New York, Atlanta, Ga., (a) 4.625 cts., (b) 4.625 cts., (c) 4.625 cts., (d) 4.625 cts., (e) $18,440; Union Foundry & Machine Co., Pittsburg, Pa., (a) 7.34 cts., (b) 5.69 cts., (c) 4.6 cts., (d) 3.46 cts., (e) $20,752; Fawcus Machine Co., 2828 Smallman St., Pittsburg, Pa., (a) 4.98 cts., (b) 7.95 cts., (c) 4.2 cts., (d) 3.85 cts., (e) $21,128; Edwin H. Jonson, 90 West St., New York, (a) 4.48 cts., (b) 7.24 cts., (c) 2.98 cts., (d) 3.98 cts., (e) $19,939; The Exeter Machine Works, 30 Church St., New York, (d) 2.989 cts., (e) incomplete; New Jersey Foundry & Machine Co., 90 West St., New York, (a) 4.1 cts., (b) 8.9 cts., (c) 3.5 cts., (d) 2.25 cts., (e) $18,602; R. C. Hoffman & Co. Continental Bldg., Baltimore, Md., (a) 3.175 cts., (b) 10.56 cts., (c) 8.32 cts., (d) 4.16 cts., (e) $23,934; Baltimore Bridge Co., Baltimore, Md., (a) 4.17 cts., (b) 6.78 cts., (c) 4.27 cts., (d) 2.89 cts., (e) $17,598; H. P. Gazzam Machine Co., 3200 Penn Ave., Pittsburg, Pa., (a) 4.9 cts., (b) 8.25 cts., (c) 4.25 cts., (d) 2.9 cts., (e) $19,978; Penn Bridge Co., Beaver Falls, Pa., (a) 3.85 cts., (b) 7.25 cts., (c) 3.8 cts., (d) 2.7 cts., (e) $17,674; J. & J. B. Milholland Co., 714 Fifth Ave., Pittsburg, Pa., (a) 5 cts., (b) 5 cts., (c) 3.3 cts., (d) 2.48 cts., (e) $15,598 (late). All bids were for delivery by rail at Columbia, except the bid of the Union Foundry & Machine Co., which was for delivery by water at Granby.

SUBWAY.—Savannah, Ga.—The City Council awarded the contract to the GADSEN CONTRACTING CO., Savannah, for constructing the Henry St. subway, at $11,158. The contract includes the excavation of 5,600 cu. yds. of earth, 6,150 ft. of piling, a considerable amount of concrete work, timber, etc. the railroad company will elevate the tracks and do the bridge work. The city will lay the sewer and pave the streets. The grade crossings at Anderson Park Ave., Bolton and Duffy Sts., will be affected. The Atlantic Coast Line Ry. Co. has given its approval to the contract.

REMOVAL OF WRECK.—Jacksonville, Fla. —Bids will be received until Dec. 23 by Capt. George R. Spalding, Corps Engrs., U. S. A., Jacksonville, for the removal of the wreck Magic City, in St. John's River, Fla.

CHEMICAL AND HOSE WAGON.—Jacksonville, Fla.—Bids will be received by the Trustees for the Water-Works and Improvement Bonds, until 3 p. m., Jan. 4, for furnishing f. o. b. Jacksonville, one combination chemical and hose wagon with equipment complete, for 3-horse hitch. For specifications and further information apply to T. W. Haney, Ch. Fire Dept.

*DREDGE, ETC.—Vicksburg, Miss.—Bids will be received until noon, Jan. 18, by Capt. Clarke S. Smith, Corps Engrs., U. S. A., Vicksburg, for a steel hull, self-propelling, hydraulic dredge, steel pontons and pipe line, and also for the component groups thereof, including steel dredge hull, steel pontons and pipe line, upper works, steam plant, propelling machinery electric plant, pumping engine, condenser plant and evaporator sand pump, suction pipe and ladder, cutter head, gear and engine, winches and refrigerating plant.

FILLING.—New Orleans, La.—The contract has been awarded to the HOME DREDGING CO., Mobile, Ala., for filling behind the sea-wall in connection with the reclamation by

the city of **about 31 acres of land for park purposes, constructing seawall, wharves, boat landing, etc.**

LEVEE.—Hickman, Ky.—The Hickman Levee Board has awarded the contract to ROACH & STANSELL, Memphis, Tenn., for 43,000 sq. yds. of levee construction to protect West Hickman from annual overflows of the Mississippi River. The levee will have average height of 7 ft. Estimated cost, $10,000.

GRADE CROSSING.—Cleveland, Ohio.—A plan is being considered by the Public Service Director for the abolishment of the Union Ave. grade crossing. Bonds for $2,000,000 have been voted for the project. It is planned to divert the route of the road between the Belt Line and the Erie R. R., making the distance between the two greater in order that a subway may be constructed in one instance and a bridge in the other.

*REMOVING ROCK LEDGE.—Cincinnati, Ohio.—Bids were received as follows by Maj. John C. Oakes, Corps Engrs., U. S. A., Cincinnati, on Dec. 9, for removing rock ledge at Dam No. 11, Kentucky River, Ky., near College Hill, Ky.: Skene & Richmond, Evansville, Ind., $29,550; Johnson & Virden, Lewes, Del., $74,000; Ohio River Contract Co., Evansville, $18,500.

IMPROVEMENT OF RIVER.—Urbana, Ohio.—The County Commissioners, Urbana, have received the report of the County Engineer relative to the improvement of Mad River near Westville. The total excavation will be 670,890 cu. yds., at an estimated cost of 9 cts. a yd. It is planned to begin the improvement at the Pin Mill Road southwest of West Liberty, where the channel will be 18 ft. wide on the bottom. The width increases from station to station until it becomes 26 ft. wide on the bottom at the railroad bridge where it will join the other improvement, being at that point of the same width. The average depth below the surface will be 9 ft. The deepest cut is 16 ft. In some places, however, it is but 4 ft. A right of way of 200 ft. is required. Six bridges will be removed and replaced. Estimated total cost, $61,580.

FIRE-WAGONS.—Ashtabula, Ohio.—The City Council has passed an ordinance instructing C. F. Brotherton, Dir. Pub. Ser., to ask for bids for two motor fire-wagons. Estimated cost, $15,000.

DRAIN.—Butler, Ind.—Bids will be received until 10 a. m., Jan. 3, by the Superintendent of Construction, at the law office of F. H. Ritter, Butler, for constructing and completing a drain known as Joint State Drain or Malissa Kelley Ditch No. 864.

DRAINAGE CANAL.—La Fayette, Ind.—The Commissioners of Tippecanoe County will soon award the contract for the construction of a drainage canal 24 miles long, if not prevented by the Court. Estimated cost, $50,000.

DITCH.—Rensselaer, Ind.—The contract has been awarded by Jasper County to JOHN HACK & SON, Lowell, Ind., for about 262,298 cu. yds. of ditch work. Estimated cost, $20,000. M. B. Price is Engr., Rensselaer.

ROAD SCRAPERS.—Muncie, Ind.—The Board of Commissioners as directors of free gravel macadam and turnpike roads of Delaware County, will receive bids until 10 a. m., Dec. 29, for six 3-wing steel road scrapers to be delivered within 30 days thereafter. Joseph E. Davis is County Audr.

DRAINAGE.—Goshen, Ind.—Contracts for the construction of the Rock Run Drainage improvement have been awarded as follows: For the main line to JOHN McMANN, the first and second sections at 6.6 cts. a cu. yd. and 7 cts. a cu. yd.; for the main line extension to A. M. LUTES, of Milford, Ind., at 18.55 cts. per cu. yd., and Lateral B, known as the Gardner Berkey ditch, to A. M. LUTES at 18.30 cts. a cu. yd.

DRAIN.—Port Huron, Mich.—Bids will be received by G. M. McCormick, County Drain Comr., until Dec. 27, for the construction of the Graves drain in St. Clair Township.

CONDUIT, Chicago, Ill.—George W. Jackson, of the contracting firm of George W. Jackson, Inc., 175 West Jackson Boulevard, Chicago, Ill., is reported to be interested in a project to build a conduit line from Chicago to New York. The "Record-Herald," Chicago, says that the cost will be about $12,000 per mile, and that it will be used for package freight, as well as telephone and telegraph wires. The American Telegraph & Telephone Co., New York, N. Y., has officially denied any interest in the project.

ROCK CRUSHING PLANT.—Superior, Wis.—Douglas County Board of Supervisors is contemplating the purchase of a rock crushing plant.

SLUICEWAY.—Burlington, Iowa.—Bids will be received by the Board of Supervisors of Des Moines County in behalf of the Des Moines County Drainage District No. 1, until 2 p. m., Jan. 5, for furnishing and constructing a reinforced concrete sluiceway with cast-iron sliding gates. The Harmon Engineering Co., 120 Fredonia Ave., Peoria, Ill., is in charge of the engineering work.

DREDGING.—Clarinda, Iowa.—Bids will be asked by Page County, C. W. Duke, County Audr., Clarinda, about Jan. 11, for 650,000 cu. yds. of dredging in Drainage District No. 8, Page County. A. S. Van Sandt, Clarinda, is Design. Engr.

DITCH.—Des Moines, Iowa.—The Commissioners of Polk and Story Counties are considering the construction of Ditch No. 2 to drain Lincoln Township, Polk County, and Palestine Township, Story County.

DITCH.—Sioux City, Iowa.—The Boards of Supervisors of Pocahontas and Palo Alto Counties are considering the establishment of the Pilot Drainage District. This work will include about 35 miles of main ditch and laterals. Estimated cost, $285,000. F. A. Malcolm, of Rolfe, is Engr.

DITCH.—Carroll, Iowa.—The Board of Supervisors of Carroll County, Peter Stephany, County Audr., are planning for construction of the Storm Creek drainage system. It is planned to drain about 40,000 acres of land. Estimated cost, $200,000.

DITCHES.—Marshall, Minn.—Bids will be received until Dec. 24 by Ernest R. Shepard, County Audr., for constructing ditches Nos. 7, 8 and 9, approximately 62,930 ft. of 5 to 22-in. tile, 32,666 ft. of 4 to 20-in. tile, and 27,068 ft. of 5 to 14-in. tile.

DOCK.—Duluth, Minn.—The contract for the construction of the main part of the dock of the Carnegie Fuel Co., at the foot of 57th Ave., West, will be let about Jan. 1. The dredging work has been begun by the Zenith Dredge Co. and will be resumed again as soon as the ice goes out in the spring. It is expected that the dock will be completed to such an extent that the company can receive coal by the middle of next summer. C. F. White, Minneapolis, is Vice-Pres.

STRUCTURAL STEEL.—Duluth, Minn.—Contracts have been awarded to the AMERICAN BRIDGE CO. for 9,000 tons of structural steel, for the construction of a new ore dock on Lake Superior for the Duluth & Iron Range R. R. Co. The new docks are intended to increase the ore-handling capacity of this road at its lake terminal. The work is expected to be completed so that the docks will be available for the spring opening of navigation.

DRAINAGE CANAL EXTENSION.—Wichita, Kan.—The city engineering department is making surveys for the extension of the drainage canal, from Zimmerly St. south to the Big Arkansas River. The line has been run through and located almost to the river. Bert C. Wells, City Engr., will soon have estimates ready to present to the City Commissioners. Estimated cost of excavating the canal from its present mouth at Zimmerly St. to the river, a distance of 2½ miles, about $40,000. The canal now extends from 21st St. to Zimmerly St., a distance of 3¼ miles. This section of the canal was constructed several years ago by the Northern Construction Co., and cost about $41,000. The canal, when completed, will be about six miles long and the total cost will be between $80,000 and $90,000. It will cost about as much to excavate the remaining 2½ miles of the canal as it did to excavate it from 21st St. to Zimmerly St., a distance of 3½ miles, for the reason that the canal south of Zimmerly St. will be from 30 to 40 ft. wide, whereas the canal already excavated through the city is but 25 ft. wide; also there will be more timber to remove south of Zimmerly St. than was encountered between 21st and Zimmerly Sts.

LOCOMOTIVE.—Fort Leavenworth, Kan.—Bids for furnishing one standard gage locomotive, two air-brake and air-dump cars, and two standard gage flat cars were received by Capt. J. E. Normoyle, Constructing Q. M., U. S. A., Fort Leavenworth, on Dec. 5, as follows: H. K. Porter Co., Pittsburg, Pa., $6,345; Vulcan Iron Works, Wilkes-Barre, Pa., $6,700; American Locomotive Co., Chicago, Ill., $9,222; Lima Locomotive & Machine Co., Lima, Ohio, $7,600; Davenport Locomotive Works, Davenport, Iowa, $7,100; Baldwin Locomotive Works, Philadelphia, Pa., $7,350.

GRADE CROSSING ELIMINATION.—St. Joseph, Mo.—The Board of Railroad Engineers will submit to the Board of Public Works plans and blue prints for the elimination of all grade crossings.

TUNNEL.—Breckenridge, Colo.—The Clear Creek & Summit Mining, Drainage & Transportation Co. will drive a mining, drainage and transportation tunnel from a point near the Lenawee mine on the upper Blue River, through Lenawee Mountain to a point in Clear Creek County. Length of bore, about 17,000 ft. The tunnel will be equipped with an electric haulage system and electrically operated fans to remove powder smoke and foul air. James H. Meyers, Breckenridge, it is reported, is interested.

CHASSIS.—Seattle, Wash.—Bids will be received by C. B. Bagley, Secy. Bd. Pub. Wks., until 10 a. m., Jan. 6, for one electric chassis for hose wagon.

OIL TANKS, WHARF, ETC.—Everett, Wash.—The Great Northern Ry. Co. has secured a site of 30 acres for the construction of oil tanks, wharf and docks. R. L. Beaulieu is Res. Engr., Seattle, Wash.

WHARF.—Bremerton, Wash.—The city has voted to issue $15,000 of bonds for the construction of a municipal wharf.

CYANIDE PLANT.—Los Angeles, Cal.—The Klondike Mining & Milling Co. will install a roaster or cyanide plant on its property in Siskiyou County within the next six months.

WHARF.—San Francisco, Cal.—The Board of State Harbor Commissioners has directed the Harbor Engineer, San Francisco, to prepare plans and specifications for a new and permanent wharf, including bulkhead, on the site which is now occupied by Union St. wharf No. 2; also to submit plans for a permanent frontal extension of wharf and sheds at Sections 1 and 2 of the seawall. These improvements and extensions are to include the proposed new grain sheds.

BOILERS.—Sacramento, Cal.—Bids will be received by N. Ellery, State Engr., State Capitol, Sacramento, until 10 a. m., Dec. 20, for furnishing and erecting two water tube boilers at the Preston School of Industry at Ione, Cal. All necessary information and specifications will be furnished on application to the State Department of Engineering.

WHARVES.—Stockton, Cal.—Bids will be received until 3 p. m., Dec. 27, by L. Frank Kuhn, City Clk., for furnishing the labor and materials and doing the work of constructing permanent wharves of asphalt along Stockton channel.

DREDGING.—Los Angeles, Cal.—The North American Dredging Co., of Nevada, has submitted a bid to the Board of Public Works to dredge a 25-ft. channel in Wilmington Basin, at 33 cts. per cu. yd.

FIRE ENGINE.—Redondo, Cal.—W. A. Anderson, City Clk., will receive bids until 8 p. m., Dec. 26, for a 60-HP. chassis, equipment with 36-in. by 5-in. demountable detachable tires and rims, gasoline tank, five lamps and complete equipment of tools, geared 4 to 1 on chassis of not less than 125-in. wheel base. To be guaranteed to carry two tons of a load for a period of one year, delivered f. o. b., Redondo.

WHARF.—Martinez, Cal.—The Union Oil Co., of California, has made application to the Board of Supervisors, Martinez, for a wharf franchise to erect and maintain a wharf on the southerly shore of the Bay of San Pablo in the County of Contra Costa. The Board has adopted a resolution authorizing the sale of the franchise applied for.

LEVEE WORK.—Yuma, Ariz.—The following awards for levee work have been made by the Colorado River Land Co.: To J. A. MAXEY, for first nine miles, 426,000 cu. yds., at from 19 to 22¼ cts. per cu. yd.; to R. P. MARABLE and JOHN MULLIGAN, Sections 8, 9 and 10, about six miles, 333,000 cu. yds., at 28 cts.; to J. C. NORTON, Sections 11, 12 and 13, at lower end of work, 325,000 cu. yds., at 36 cts. A portion of the work near the Abejas River crossing which will be occupied by the railway, and the grading required for five miles of track will be done by force account. This work has been assigned to W. K. Bowker, of the C. M. Ranch Co., who already has 500 head of stock, equipment of scrapers, wagons, tools, etc., on the ground. The work has been staked out for some time and actual construction has begun. Work on the first nine miles and on Sections 8, 9 and 10 has begun and work on Sections 11, 12 and 13, Norton, will soon follow. The clearing and grubbing is done by the contractors at rates ranging from $25 to $50 per acre for clearing and $50 to $90 per acre for grubbing.

YUMA, ARIZ.—The Government of Mexico has given its consent for the construction by the United States of a levee in Mexican territory to control the waters of the Colorado River for the protection of Imperial Valley, California. Congress at its last session appropriated $1,000,000 for this purpose.

DAM.—Sherbrooke, Que.—Bids will be received by Ross & Holgate, Engrs., 80 St. Francis Xavier St., Montreal, Que., until noon, Dec. 28, for the construction of a concrete dam in the Magog River, near Rock Forest, Sherbrooke.

WHARF EXTENSION, BREAKWATER, ETC.—Ottawa, Ont.—Contracts have been awarded by the Department of Public Works, Ottawa, as follows: Providence Bay, Ont., **wharf extension, to CHARLES H. SHERWOOD, Port Arthur, Ont., $15,438; Paspebiac East, Breakwater, to PETER NADEAU & SONS, Grand Cascapedia, Que., $15,720;** St. Joseph de Sorel, Que., landing pier, to JOSEPH CARDIN, Sorel, Que., at $9,100; Winnipeg Beach, Man., pile protection pier, to JOHN GUNN & SONS, Winnipeg, Man., at $19,192; Brockville, Ont., pier, to SAMUEL GOWAN, Brockville, at $6,500. R. C. Desrochers is Secy.

CANAL WORK.—Ottawa, Ont.—Large delegations from different sections of Canada have urged the Government to begin work upon two canal projects, either of which would involve a cost of $100,000,000. An Ottawa-Montreal delegation favors the immediate construction of the Georgian Bay Canal. It was pointed out that a proposed deepening of the Welland Canal would be unwise, because the improvement, in conjunction with the building of the Oswego Canal, would tend to divert the grain traffic of the Canadian West to New York instead of Montreal. The second delegation, representing towns and boards of trade in western Ontario, demanded that the Welland Canal be enlarged first. The cost of deepening the Welland Canal to 25 ft. is estimated at $25,000,000, but the completion of the waterway by similar work on the St. Lawrence canals, between Kingston and Montreal, would necessitate the expenditure of an additional $75,000,000.

DAMS, SLUICEWAYS.—Ottawa, Ont.—Bids will be received by R. C. Desrochers, Secy. Dept. Pub. Wks., Ottawa, until 4 p. m., Jan. 11, for the construction of a dam and sluiceways across a channel in the French River, in the Indian Reserve, Province of Ontario.

STEEL RAILS.—Ottawa, Ont.—Bids will be received until Jan. 24, by the National Transcontinental Ry. Commissioners, P. E. Ryan, Secy., for approximately 61,200 gross tons of 80-lb. steel rails, and the necessary rail fastenings. Forms of proposal and specifications may be obtained from the office of Gordon Grant, Ch. Engr., Ottawa.

TELEPHONE POLES.—Winnipeg, Man.—A contract for supplying 47,000 telephone poles has been awarded to J. H. HYLAND & CO., Winnipeg, by the Manitoba Government Telephone Commission.

LAUNCH.—Vancouver, B. C.—Bids will be received by William McQueen, City Clk., until 4 p. m., Dec. 30, for a launch for the service of the Isolation Hospital.

EXTENSION TO BREAKWATER.—Margaree Harbor, N. S.—Bids are asked until Jan. 4 by the Public Works Department, Ottawa, for the construction of an extension to the breakwater here. R. C. Desrochers is Secy.

CONTRACT PRICES.

(* *Denotes that this work is advertised in Engineering News.*)

REMOVING ROCK LEDGE.—Cincinnati, Ohio.—Bids were received Nov. 9 at Cincinnati by Major John C. Oakes, Corps of Engrs., U. S. A., for removing a rock ledge at Lock No. 11, Kentucky River, Ky., from: (A) Skene & Richmond, Evansville, Ind.; (B) Johnson & Virden, Lewes, Del.; (C) Ohio River Contract Co., Evansville, Ind. The itemized bids were as follows:

	A	B	C
1,000 cu. yds. earth excavation	$0.75	$2.00	$0.50
12,000 cu. yds. rock excavation	2.40	6.00	1.50
Totals	$29,550	$74,000	$18,500

DAM AND RESERVOIR.—Pittsfield, Mass.—Bids were received Dec. 14 for the construction of the Farnham Dam and Reservoir from: (A) John Gill & Co., Philadelphia, Pa., and Grant Rohrer, New York; (B) Fred T. Ley & Co., Springfield, Mass.; (C) Luke D. Mullen, Boston, Mass.; (D) Winston & Co., New York, N. Y.; (E) MacArthur Bros., New York, N. Y.; (F) J. F. Cogan, New York, N. Y.; (G) The Connors Bros. Co., Lowell, Mass.; (H) Coleman Bros., Boston, Mass.; (I) Daniel O'Connel's Sons, Holyoke, Mass. The itemized bids were as follows:

FARNHAM DAM AND RESERVOIR, PITTSFIELD, MASS.

	A	B	C	D	E	F	G	H	I
10 acres clearing	$50.00	$60.00	$50.00	$75.00	$35.00	$30.00	$25.00	$100.00	$50.00
47 acres clearing and grubbing..............	200.00	125.00	500.00	125.00	225.00	100.00	175.00	200.00	200.00
10,000 cu. yds. earth excavation, Class A..........	1.50	1.00	1.00	.90	.70	.50	.60	.60	1.00
11,500 cu. yds. earth excavation, Class B..........	1.25	.90	1.00	.50	.85	.60	.65	1.00	1.00
37,000 cu. yds. earth excavation, Class C..........	.95	.60	1.00	.45	.55	1.00	.70	.70	.70
12,500 cu. yds. earth excavation, Class D..........	.45	.50	1.00	.50	.50	.35	.60	.50	.75
9,000 cu. yds. earth excavation, Class E..........	1.50	1.75	1.00	.90	.90	.75	1.60	.85	1.10
3,200 cu. yds. earth excavtion, Class F..........	1.50	1.00	1.00	.75	.90	.80	1.00	.35	1.50
1,500 cu. yds. rock excavation, Class A..........	3.00	5.00	3.00	2.00	3.00	1.50	4.75	2.50	1.50
2,900 cu. yds. rock excavation, Class B..........	3.00	4.50	3.00	2.00	2.60	1.40	5.00	1.50	2.25
1,500 cu. yds. rock excavation, Class C..........	7.00	10.00	10.00	4.00	6.50	6.00	15.00	8.00	5.00
700 cu. yds. rock excavtion, Class D..........	1.00	2.50	3.00	2.50	2.25	1.65	3.00	2.00	1.50
3,000 cu. yds. rock excavation, Class E..........	3.50	3.00	3.00	2.50	3.25	2.00	4.00	4.00	3.00
60,000 cu. yds. overhaul, hauled 100 ft., equivalent to	.08	.015	.02	.02	.02	.02	.05	.02	.015
400 cu. yds. mass concrete, Class A..........	8.40	8.50	8.50	8.00	11.00	11.00	8.00	10.00	10.00
1,000 cu. yds. mass concrete, Class B..........	8.25	8.25	8.00	7.50	10.25	10.00	7.75	8.50	10.00
850 cu. yds. mass concrete, Class C..........	7.50	7.75	7.50	7.00	9.00	9.00	7.50	8.00	10.00
1,400 cu. yds. mass concrete, Class D..........	17.00	9.50	8.50	12.00	15.00	22.00	12.50	10.00	30.00
22,000 cu. yds. Cyclopean masonry, Class A..........	7.90	7.00	8.00	6.00	7.00	5.50	5.75	7.50	6.50
15,000 cu. yds. Cyclopean masonry, Class B..........	7.65	6.75	7.25	5.50	6.50	5.25	5.60	7.00	6.25
2,000 cu. yds. Cyclopean masonry, Class C..........	7.15	6.50	6.50	5.00	5.75	5.00	6.00	6.00	6.25
2,000 cu. yds. concrete blocks, Class A..........	13.00	12.50	22.00	12.50	12.00	10.00	20.00	16.00	12.50
1,300 cu. yds. concrete blocks, Class B..........	12.50	12.25	21.00	12.00	11.00	9.00	19.50	15.00	12.50
650 cu. yds. concrete blocks, Class C..........	12.00	12.00	20.00	11.50	10.00	8.00	19.00	14.00	12.50
600 sq. yds. granolithic surfacing	1.50	.50	1.25	.75	.75	.50	1.75	1.75	2.00
1,300 cu. yds. paving	5.00	5.00	3.00	3.00	6.00	2.75	7.00	2.00	3.00
60 tons Placing iron and other metal work.....	40.00	30.00	30.00	40.00	15.00	20.00	25.00	20.00	20.00
2,000 lin. ft. furnishing and laying 12-in. vit. pipe.	.75	.75	.70	.50	.75	.60	1.25	.75	.90
500 lin. ft. furnishing and laying 20-in. vit. pipe.	1.50	1.25	1.20	1.10	1.35	1.00	1.60	1.50	1.65
1,500 lin. ft. furnishing and laying 24-in. vit. pipe.	2.25	1.75	2.00	1.60	2.00	1.25	2.00	2.25	2.40
27 M. ft. B. M. furnishing and placing spruce lumber	60.00	50.00	60.00	50.00	60.00	40.00	65.00	50.00	50.00
Gate-house superstructure (lump sum).......	1,000.00	1,500.00	5,000.00	1,500.00	1,200.00	3,500.00	2,000.00	2,500.00	4,000.00
Totals	$550,780	$486,138	$577,495	$399,600	$467,840	$403,980	$490,905	$494,385	$489,600

U. S. POSSESSIONS.

LUMBER.—Panama.—Bids will be received until Dec. 27 by the Isthmian Canal Commission, Washington, D. C., for furnishing 3,393,000 ft. of Douglas fir timber, to be delivered along the route of the Panama Canal.

POST OFFICE.—Porto Rico.—James Konx Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has awarded the contract for the construction of a post-office building at San Juan to the P. J. CARLIN CONSTRUCTION Co., 16 East 23d St., New York, at $374,000.

STRUCTURAL STEEL. — Panama.—Bids were received as follows on Dec. 13, by the Isthmian Canal Commission, Washington, D. C., for furnishing 1,015,000 lbs. 58 Anchorage "A" structural steel: Baltimore Bridge Co., Baltimore, Md., $29,232, $28,217, units, $2.88 per cwt., $2.78; Belmont Iron Works, Eddystone, Pa., $2.745, $27,862; McClintic-Marshall Construction Co., Pittsburg, $2.60, $26,390; Pennsylvania Steel Co., Steelton, Pa., $2.59, $26,288; Riter-Conley Mfg. Co., Pittsburg, $2.94, $29,841; Union Foundry & Machine Co., Pittsburg, $2.94, $30,383; United States Products Co., New York, $28,724; J. B. Kendall Co., Washington, $2.91, $29,536; Penn Bridge Co., Beaver Falls, Pa., $2.73, $27,709. Capt. F. C. Boggs, Corps Engr., U. S. A., Washington, is Gen. Purchasing Officer.

*DAMS AND CANAL.—Porto Rico.—The opening of bids for the construction of (1) Carite Dam, (2) Guaybal Dam, and (3) Patillas Canal and appurtenant structures has been postponed from Jan. 3 to Feb. 7, 1911. The work is as follows: (1) Carite Dam and appurtenant structures, containing about 150,000 cu. meters of earth and loose rock, the estimated cost of which is about $190,000; (2) Guayabal Dam and appurtenant structures, containing about 73,500 cu. meters of concrete masonry and 82,000 cu. meters of excavation, the estimated cost of which is about $550,000; (3) Patillas Canal and appurtenant structures, including about 32,000 cu. meters of open-cut excavation, 2,060 lin. ft. of tunnels, 2,500 lin. ft. of flumes, 600 lin. ft. of siphons, and 100 bridges, the estimated cost of which is about $70,000. Plans and specifications may be obtained from the office of Porto Rico Irrigation Service, Guayama, or from John A. Wilson, Comr. of the Interior of Porto Rico, San Juan, or from the Bureau of Insular Affairs, Washington, D. C.

EXAMINATIONS.

ASSISTANT PHYSICIST. — Washington, D. C.—The U. S. Civil Service Commission announces an examination, on Feb. 8, to secure eligibles from which to make certification to fill vacancies as they may occur in the positions of laboratory assistant (in physics) and Assistant Physicist in the Bureau of Standards, Department of Commerce and Labor, at salaries varying from $900 to $1,200 a year for laboratory assistant, and from $1,400 to $1,800 a year for Assistant Physicist, unless it shall be decided in the interest of the service to fill vacancies by reinstatement, transfer or promotion. The duties in connection with these positions are similar to those of assistants in the physical laboratories of scientific and technical institutions. As far as practicable, appointees are assigned to work in the subjects for which they are best fitted. The examination will consist of the subjects mentioned below, weighted as indicated: General physics, 25 points; special subjects, 25 points; education and experience, 50 points. Applicants must have reached their 20th, but not their 35th, birthday. Examination form 1312.

ASSISTANT CURATOR.—Washington, D. C. —The U. S. Civil Service Commission announces an examination, on Feb. 8-9, to secure eligibles from which to make certification to fill a vacancy in the position of Assistant Curator in the Department of Geology, National Museum, Washington, D. C., at $1,800 a year, and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interest of the service to fill the vacancy by reinstatement, transfer or promotion. The examination will consist of the subjects mentioned below, weighted as indicated: Elementary mathematics, chemistry and physics, 5 points; essays on technical subjects given, 35 points; French and German (translation of scientific matter from each of these languages into English), 10 points; general geology and mineralogy, 10 points; economic geology, 10 points; museum, laboratory and field methods, 15 points; education, training and experience, 15 points. Applicants must have reached their 20th birthday. Examination form 1312.

ASSISTANT ENGINEER IN FOREST PRODUCTS.—Washington, D. C.—The U. S. Civil Service Commission announces an examination, on Jan. 18-19, to secure eligibles from which to make certification to fill vacancies as they may occur in the position of Assistant Engineer in Forest Products, at entrance salaries ranging from $1,200 to $1,500 a year, in the Forest Service, Department of Agriculture, unless it shall be decided in the interest of the service to fill such vacancies by reinstatement, transfer or promotion. The examination will consist of the subjects mentioned below, weighted as indicated: Technique of testing materials, 25 points; mechanics and mathematics, 25 points; drafting and machine and structural design, 25 points; training and experience, 25 points. Applicants must have reached their 20th, but not their 50th, birthday. Examination form 1312.

INDUSTRIAL NOTES.

MILLER & FRANCIS CO., 50 Church St., New York, N. Y., are the successors to S. E. Miller, 26 Broadway, New York, N. Y., a dealer in railway and contractors' equipment.

THE CONCRETE STEEL CO., 29 Broadway, New York City, has announced that it is prepared to furnish a round Havemeyer bar in sizes from ¾-in. to 1¼ ins. in diameter, rolled to the same weight and area as plain round bars.

THE RAILWAY APPLIANCES ASSOCIATION will hold its annual exhibition at the Coliseum, Chicago, March 20 to 25, in connection with the convention of the American Railway Engineering and Maintenance of Way Association. Among the extra attractions will be a model of the Brennan gyroscope monorail car, in operation. Space has been taken already by about 130 exhibitors, and only a small proportion of the total space is now available. For information address the Secretary, John N. Reynolds, 303 Dearborn St., Chicago.

CONTRACTS HAVE BEEN PLACED by the Clinton Wire Cloth Company, Clinton, Mass., through their engineer, Charles T. Main, of Boston, with the Crocker Wheeler Co. for one 150 K.W., three-phase, sixty-cycle, 600-volt generator, to be direct connected with one of its present engines, and the accompanying exciter set, with the Westinghouse Electric & Mfg. Co. for one 11 and 19 × 11-in. Westinghouse engine, to be direct connected to one of the present single-phase generators for welding work. This engine has an extremely heavy flywheel. The contract has been placed with the Edge Moor Iron Company for one 200-HP. water-tube boiler.

THE QUESTION OF GIVING souvenirs at conventions has come to be a pressious one, and no one who has seen the mad rush for trinkets can fail to realize that a large part, at least, of these trinkets fail to give even the slightest return. The Water Works Manufacturers' Association has taken up the question and as a result of a letter of inquiry in which the members were requested to express their opinion relative to the distribution of souvenirs, announces the result as follows:

"Out of 51 letters received, 33 are opposed to the practice on broad general principles; three are willing to abide by whatever action the Executive Committee may take; six are indifferent; two agree to discontinue if others do; six believe it should be a matter of individual rights, while one raises the question of the value of this feature of advertising in connection with the American Water Works Association. After reviewing the matter fully it is the sense of the Executive Committee that this form of advertising be discontinued, and that no souvenirs be distributed in connection with any convention within the jurisdiction of this Association."

THREE MANEUVERING BOATS have recently been constructed for use in operating movable dams in the Ohio River by Thomas Carlin's Sons Co., Henry W. Oliver Bldg., Pittsburg. These boats, which will be used by Government Engineers, have the appearance, above water, of rectangular floats being 60 ft. long, 22 ft. beam. They are built of wood, the bottom being planked with 3 × 12-in. pine; the end timbers are of oak 12 × 12-in. and there are two longitudinal bulkheads made of 5 × 8-in. timber. In the fore part of each boat is a derrick having four stiff legs with a mast 20 ft. high made of 12 × 12-in. timber, stepped eccentric at the bottom. The boom is 35 ft. long, made of 10 × 12-in. timber; the stiff legs are supported to deck by steel posts made of angles and plates. The boiler is 48 ins. in diameter and 8¼ ft. high. The hoist is a double cylinder, while the engine is a triple friction drum with independent winch heads. The two front drums operate the derrick with the lines running under the deck, and the rear drum is used for raising and lowering wickets of the dam; a cast steel outrigger sheave being placed at the bow of the boat for that purpose. These boats are also provided with one capstan aft of the engine-house which is operated by a vertical double piston valve reversing engine through a horizontal shaft, which is placed under the deck.

BUILDING MATERIALS IN ARGENTINA. —The lack of timber in the central zone of Argentina is a serious handicap, and the difficulty of building is further complicated by the fact that the Province of Buenos Aires, the most populous in the Republic, is deficient also in sand and in stone. Cement is imported from Europe. Building in this section of the country is an exceedingly expensive operation, and it is said to be partly on this account that rentals are so extremely high in the city of Buenos Aires, averaging twice as much as for similar accommodations even in the city of New York. In the country districts of the Province of Buenos Aires, and more or less throughout the Republic, it is only the comparatively well-to-do who live in adequately constructed houses. The houses of the poor are constructed of a vast variety of odds and ends, and frequently exhibit much ingenuity in the making. They are rambling one-story buildings, with a framework of odd bits of timber, the rest made up of scraps of sheet iron, mud, straw, old kerosene tins, and what not. To a considerable extent the adobe house is in use—that is, one built of straw, with a timber framework. For a better grade of house, sheet iron is largely employed, and in brick and masonry houses sheet-iron roofs appear to be supplanting tiling. In the timberless regions of Argentina lumber, either native or imported, is too expensive to be used for anything except the interior finishings of a building.

THE UNFILLED TONNAGE STATEMENT of the United States Steel Corporation, as of Nov. 30, showed a reduction in orders on the books of 111,563 tons.

The unfilled business of the Steel Corporation now stands at 2,760,413 tons, comparing with 5,927,031 tons on Dec. 31, 1909, and 8,489,718 tons on Dec. 31, 1906. Unfilled tonnage on hand at the present time is the smallest on record, being 287,023 tons under the 3,027,436 tons reported on Sept. 30, 1904.

As a result of the change in the basis of compiling tonnage figures, as announced by Judge Gary a month ago, the tonnage is larger in comparison than would appear from the actual figures. Based upon the tonnage as compiled up to about two years ago, the showing as of Nov. 30 would be 3,472,474 tons, instead of 2,760,413 tons. This figure would compare more favorably with previous reports.

The following table gives the unfilled tonnage of the United States Steel Corporation by months since June 30:

Period.	Unfilled Tonnage.
November 30	2,760,413
October 31	2,871,949
September 30	3,158,106
August 31	3,537,128
July 31	3,970,931
June 30	4,257,794

The smaller decrease in November unfilled tonnage than reported during the month of October was due more to the falling off in deliveries of steel than to increased orders.

TELEPHONE CONDUITS.—Telephone wires in cities have been practically relegated to underground conduits. For a number of years the telephone pole in the city streets, carrying a large number of wires, has been a rarity. Within the last few days announcement found its way in the public print that the American Telephone Co. contemplated the building of a conduit line from New York to Chicago. Although this has been officially denied, there is no doubt that some time in the future such a line may be constructed. The leading telephone interest in this country already has an underground line from Wilmington, Del., to New York, N. Y., by the way of Philadelphia, and has authorized the construction, and is now working on a line from Wilmington to Washington, D. C., a distance of about 110 miles. This will preclude the possibility of any tie-up in the wire service such as happened at the time of the inauguration of President Taft. To the East of New York a line has been constructed to New Haven, Conn., and also from Providence, R. I., to Boston. The gap between New Haven and Providence is now being closed and when this 100 miles of construction is completed, the American Telephone & Telegraph Co. will have a continuous underground line between Boston and Washington. The cities through which a line to Chicago woud pass are not as large, nor are there as many of them as on the Boston to Washington line, but the extension of the telephone industry is such that a telephone conduit line from New York to Chicago is not an impossibility.

WASTE IN COKE PRODUCTION.—"Probably in no other industry, unless in the mining of coal itself, is there so much waste as in the manufacture of furnace and foundry coke," says Richard Moldenke, Secretary of the Foundrymen's Association, and a recognized authority on the coke industry, in a bulletin on that subject issued by the Bureau of Mines.

One of the principal causes of waste he attributes to the use of the old beehive type of oven, which allows the by-products, such as tar, surplus gas, ammonia products and benzol, to escape.

Basing his estimate on the figures on the coke production of 1907, Mr. Moldenke says that approximately the net loss due to beehive oven coke production in that year amounted to $38,000,000.

The change from the beehive to the retort or by-product plant will be slow, he says, as, in addition to involving enormous investment, it requires a "systematic development of the markets to take up the tar, surplus gas, ammonia products and benzoi that will be made as the newer installations are built.

"We are far behind Europe in this respect," he continues, "for if we should seriously undertake to bring about the use of these by-products to the extent that is logically possible by making creosote, the aniline dyes, etc., there would be no further need to burn tar under boilers to get rid of it, or for more importations of ammonium salts, creosote, etc."

As the coal from which the best coke is made is nearly exhausted, he says, in order to lengthen the life of the mines it should be mixed with poorer grades, the combination making an equally useful coke.

Discussing coke breeze, also known as "crushed coke," as another source of waste, he says that in the regions where the retort ovens are used this is systematically worked up for special industrial purposes, while in the regions where the old methods are practiced "no one seems to think it worth while to take advantage of fuel that could be had for the mere carting."

"Coal evidently is so cheap," he continues, "that the need of a substitute is not felt."

"All classes of citizens," concludes Mr. Moldenke, "could help to encourage less wasteful methods of using coal, and our industrial experts in particular should study methods of economizing to the utmost extent by improved processes of manufacture and use the resources that before long seems likely to be exhausted."

AMERICA, THE LARGEST OIL PRODUCER IN THE WORLD.—The advance chapter of the Geological Survey's volume, "Mineral Resources of the United States," for 1909, on the production of petroleum, by David T. Day, is now in press and will be ready for distribution about Jan. 1.

In 1907 the oil product of the United States, which had been increasing rapidly in previous years, made a phenomenal gain—over 30%—and reached the great total of 166,095,335 bbls. This gain was due to the sudden development of the Illinois field and to great increases in the fields farther West, in Oklahoma and California. In 1908 and 1909 this production was sustained and has even increased, though by no great percentage. In 1908 the quantity produced rose to 178,527,355 bbls., and in 1909 also the record showed a slight gain—the total being 182,134,274 bbls.—but there was a decline in value from $129,079,184 in 1908 to $128,-248,783 in 1909. The average price per barrel was $0.723 in 1908 and $0.704 in 1909. This is consistent with the increase in stocks during the year.

Only three States contributed greatly to the increase in quantity produced. California took first place by gaining 21.35%, Oklahoma increased 4.5%, and West Virginia 12.83%. Utah and Wyoming produced only 22,137 bbls., but this was a gain of 24.55% over their combined output in 19[illegible]. In all other States decreases were noted, [illegible] greatest decline, 47.15%, being in Lou[illegible].

California, as was expected, [illegible] first place in petroleum production, [illegible]nging places with Oklahoma. Californi[illegible] product in 1909 was about 6,500,000 bbls. [illegible] than any other State has ever produced [illegible] year. Should California show a further [illegible]tion-ate increase in 1910, her total w[illegible] more than double the highest yield of [illegible]nsyl-vania.

West Virginia's increase brought [illegible] State from sixth to fourth on the list, ex[illegible]nging places with Texas. All the oth[illegible] tates retained their rank of the year 19[illegible].

The use of fuel oil by the railro[illegible] the United States is on the increase, [illegible] con-sumption in 1909 amounting to [illegible]9,394 bbls, as compared with 16,889,070 [illegible] in 1908 (an increase of 3,050,324 bbls, [illegible] 18%), and with 18,855,691 bbls. in 1907. [illegible] con-sumption of oil per mile of road [illegible]rated was 3.66 bbls. in 1909, as compar[illegible] with 3.81 bbls. in 1908 and with 3.93 bbls. [illegible] 1907, which shows that the methods now e[illegible]ployed are more economical than those [illegible] use when oil was introduced as a fuel [illegible] the railroads of the country. The oil co[illegible]umed on the railroads is mostly crude, [illegible]ut in-cludes a considerable quantity of re[illegible]uum—the product left after the lighter o[illegible] have been extracted by refining.

The introduction of fuel oil in the United States navy has been rapid and the results have been fully as good as had been expected. During the last year two battleships—the "North Dakota" and the "Delaware"—were equipped with auxiliary oil-burning plants, and four more battleships now being built will each carry 400 tons of fuel oil to burn as auxiliary to coal. Fifteen destroyers will also be equipped for burning fuel oil. In England, Germany, France, Italy and Austria, similar experiments are being made.

The following countries, besides the United States, increased their production of oil in the year 1909: Russia, Galicia, Dutch East Indies, Roumania, India and Peru. The total output for the world increased from 285,000,-300 bbls. in 1908 to 297,413,791 bbls. in 1909, of which the United States produced over 60%.

IMMENSE DEPOSITS OF IRON ORE.—One of the most important discoveries made in recent years on any of the iron ore areas situated in Canada have been made during the past few months on the lower beds of the areas of the Nova Scotia Steel & Coal Co. at Wabana. The results of these discoveries go to prove that Wabana is undoubtedly one of the most important iron ore deposits in the world.

The company's submarine slopes are driven seaward from the upper bed, and as the work advanced bore holes were sunk from the upper beds to the lower beds, in order that the company might have an opportunity of testing the quantity and quality of the underlying ore. The results obtained from the last bore holes have been perfectly satisfactory, proving as they do that the big increase in thickness of the seam after it dips under the sea, as shown by the former bore holes, is fully maintained. This seam in the submarine areas is 20 to 30 ft. thick, as against 11 or 12 ft. thick on the land.

What is most important, however, from the company's standpoint, as also from the point of view of the shareholders, is that the quality of the ore is far superior to anything previously found on the company's deposits. The average iron contents of the entire thickness of the seam is over 55%. This is 3% or 4% higher than the results obtained from the previous bore holes. In fact, some of the ore on the new seam shows as high as 58%. Perhaps even more important than the increased percentage of iron in the ore is the decrease in the silicum. Previous tests of this bed before it entered the areas of the company had shown as high as 16% of silicum. The average was 12% or 13%, but in the last bore hole it was found that on the lower bed the silicum is down to about 9%, which makes it nearly ideal for blast furnace purposes. The indications are that the ore will be of even better quality as it goes deeper.

While there was never any doubt as to the continuity of this lower bed, this last bore hole has proved that it extends for a further 1,000 ft. in the Scotia areas. The submarine development has shown that this lower bed in the Scotia holdings, which is approximately 20 ft. thick, has so far been proven to be over 3,000 ft. wide, and its estimated length is about eight or ten miles. The lower bed is supposed to be shaped like a saucer, and at the present time the operators of the company have only crept down a very short distance along one of the rims towards the center.

Of course, men who have been in a position to know, have right along claimed that the company's supply of ore was practically inexhaustable, and the recent developments have demonstrated absolutely that there is enough at present in sight to supply more than double the requirements of the company for three or four hundred years, and if the remainder of the areas continue to show the same results as have been obtained by the recent development work, it will become practically impossible to compute just how much ore there is on all the company's areas.

Every part of Canada will be interested in learning the exact results of the important development work that has been carried out, as it goes to show that Wabana is undoubtedly one of the most important iron deposits in the world. While the recent important developments have all been made on what is known as the lower seam, the upper seam continues to be of even, uniform quality and thickness.—"The Wall Street Journal."

THE SALESMAN'S ANGLE or [illegible]tory Price versus Price the User Pays. [illegible]racts from an address delivered before the National Gas and Gasoline Engine Trade Association in convention at Racine, Wis., Dec. 12 to 15, by Charles O. Hamilton, General Manager Elyria Gas Power Co. and Vice-Pres. of the Association.

Practically every member of this Associa-

tion is a salesman, a gas engine salesman; if not of a completed engine, then of some accessory which makes him feel akin to and herd with the gas engine bunch. As salesmen we are confronted with the solution of a sales problem every hour of the day, every day in the year. My experience leads me to believe that our sales problem is the big thing of our industry and that as yet we are far from a satisfactory solution.

For fear of rousing your hopes, only to disappoint you, let me say at the start that I bring a suggestion only. If I had a solution I wouldn't be here. I would be out reaping the reward that must come from a right solution. Neither: I am bound to assume, have you solved this problem or you wouldn't be here to-day.

I have thought a lot about sales, as have you all. I want to tell frankly where my thoughts have led me. Then I earnestly hope that you, from your different viewpoint, will point out my errors and that through a free exchange of ideas we may do something, take some step toward a wise solution of our problem.

In order to get the matter before you, some one must "start something" and I have the temerity to be the starter. Please don't misunderstand my motive. I merely want to tell you how I see it. My deductions are not necessarily right. I don't pose as a Moses who would release you from bondage and lead you to the promised land where awaits our reward, but rather a Daniel who makes a try at interpretation of the written warning. I am going to tell you at the start what I am driving at and then lead you through the different steps taken to arrive at the conclusions: that the sale, the transfer of ownership from the builder to the user of gas engines and accessories costs too much; that this excessive cost is largely due to the fact that we salesmen don't make good, don't really earn the money that it costs to maintain us; that the user who pays this excess cost does not know how much he really does pay or realize how little he gets for it; that a reduction in cost to the user will materially stimulate the demand and aid in making sales; and finally that this reduction can best be brought about by showing the user just where he stands and that his buying methods can perhaps be changed to the advantage of us all.

The gas engines and the appliances that have to do with their operation, as are represented in our Association here, are used for business purposes. Our users don't buy our gas engines for joy rides. They buy them to make the money to buy the joy ride engine. Our user is confronted with a cold, hard business proposition. He wants power, reliable, economical power, something that will run his machine, will make his product, from which he gains a living and buys his luxuries. The better service we can render him, the better customer he becomes and more and better customers are what we salesmen are striving for.

The user of our goods has a power problem, the solution of which does not call for the use of fairy tales. Simple arithmetic is what is needed. Two and two make four. To best serve his interests, we must save his time and his money, and unless this is done the transaction is not good business for him or for us and does not advance the interests of our industry. The more ample his returns, the more prosperous our business.

Ideal conditions for the user are easily pictured. To serve his best interests we must furnish him a well-built engine of proper size, so equipped and installed as to best produce reliable and economical operative conditions, and this at the lowest possible cost.

The first cost of an engine is always a most important thing. It is the user's investment, the point from which calculations as to the advisability of purchase must start. It is the element that he sees plainest. He figures so much invested, then so much for fuel and attendance. So much invested, so much to maintain. So much invested, to save him a certain amount.

The user knows, as we all know, that loss of time, waste of fuel, resulting from lack of ideal installation conditions, or lack of any or all of the aforementioned things that go to make up an ideal plant, will cut down the engine's ultimate value. He is almost bound to assume that the engine he buys will have all the virtues so far as reliability and economy in operation are concerned, but he will and should value his investment to a large extent on the amount of money invested.

Now don't think that I am, for a minute, arguing for a cheap engine. You who know anything about my proposition know that my product is high priced, but in taking up this matter of first cost, I am trying to point out the fact that the lower the price I can make on my engine, the better it is for the man who buys it. In considering our sales problem we should, at all times, have these ideas in mind: we must not only meet as nearly as possible ideal conditions, but must furnish the engine at the lowest possible price.

Now right here and now, let's all fully understand that the user of our product must pay—no, I will qualify—should pay all that is added to the first or factory price, not as extra profit to the builder but as extra cost to himself, a cost created and largely controlled by him. You realize this, of course, but does he? I think not because incidentally I have heard prospective buyers declare that they would not pay "two prices" for a gas engine and then have seen them select an engine that plainly carried three prices—factory price, factory sales price, and agents' sales price.

Here is another thought. I feel that in trying to solve this sales problem we are leaving out one element that to me seems most important in reaching a right solution. I don't believe we give attention enough to the left-hand side of this angle, the user. I have about arrived at the point where I feel that we gas engine men ought to realize that we are really working for the user. He is the objective point and I feel that without taking him into our confidence to a greater extent than we have as yet considered doing, we won't get the results that we want to get. To my mind he is the only one who can make possible the reduction of sales costs.

My experience in the sale of gas engines may not have been as broad as that of some of you who are listening to me to-day, yet it covers a period of about ten years in which I first bought a gasoline engine and used it. Then I sold them as a local agent. Since then I have handled them as a jobber, have acted as a direct representative of the builder and to-day, in a modest way, I am a builder. This may not mean much, yet to the best of my ability have I struggled for ten long years with this sales problem and on the strength of my own experience I venture the assertion that the average gas engine user is paying pretty nearly 50% more for his engine than its builder would be glad to furnish it for if he didn't have a sales expense.

Now don't get confused in your percentage. If the user paid $300 for his engine and the factory price was $200, he would have paid $100 for the sales cost. This is 50% over the factory price or (and perhaps it sounds better) 33 1/3% on $300, the price that he really paid. I feel that this is really conservative.

I will grant you that there might be found builders who over certain periods, could show that their customer, the user, had not paid as much as I have stated. I doubt if he could show this over any considerable period of his existence. But there are others who could, if they would, tell us of a much higher charge. Remember that in adding even 50% to our factory price, we do not increase our factory profit but stand a chance of having even that profit wiped out by a slip in our sales campaign.

As I see it, there are five things that he, whether a direct representative of the builder, an agent, dealer, or jobber (classify him and divide him as you will) can do for the user, the man who really pays the bills.

First, a salesman can discover a man who is using expensive power, can point out the advantages of a gas engine and lead him to purchase.

Second, he can offer engineering advice as to the size, location, installation and operating conditions.

Third, if working independent of the builder, he may extend credit to the user.

Fourth, if not a direct representative, he could possibly offer certain conveniences to the user through having in stock engines purchased in car lots making deliveries at a saving of freight over individual shipments and carrying repair parts. In this way he would appear to facilitate the transaction of business.

Fifth, he can talk; he is, generally speaking, entertaining.

If I have overlooked anything please call my attention to it later. We salesmen need all the credit we can get because if what I have to say about us is true, we are certainly in a bad way.

To expand a little on the above points, let us see what the salesman does do to earn his money.

As to the first, I ask you builders who employ salesmen direct, or you dealers or jobbers who employ them, I ask you salesmen yourselves to go carefully over the year's business and tell us what percentage of people you sold were really discovered by the salesman. It seems to me that our personal contact sales system has worked around to a point where it is almost necessary for us to get on the trail of a buyer through some other means than that of expecting the salesman to dig up his own inquiries.

Analyzing the business at our office, I have classified the source of inquiries which resulted in sales as follows: first, in number, from advertising, direct or indirect. By this I mean through use of copy in papers and by circularizing.

Second, through the prospective user having seen, heard or read about the operation

LIST OF CONTRACTS PENDING.

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file for reference only unless otherwise noted at the office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.		Noted in issue of
12-24	Bridge, Stone Harbor, N. J. (P. & S.)	12-15
1- 7	**Dredging, Hawaii (U. S. Poss.) (S)**	**10-27**
1- 7	Elec. capstan, Portsmouth, N. H. (S)	12- 8
1-21	Oil storage house, Bremerton, Wash. (S.)	12- 1
1-28	Foundry, Bremerton, Wash. (Mfg. P.) (S.)	12- 8
1-26*	Building, Washington, D. C.	12- 1
1-28	Foundry, Bremerton, Wash. (Mfg. Pl.)	12- 8
1-31	Court-house, Onida, S. Dak.	10-20
2- 1	Building, Lockport, N. Y.	12-15
2- 1	Mills, Los Angeles, Cal. (Mfg. Pl.)	12-22
4-15	Plans, Havana, Cuba	10-20

Light, Heat and Power Plants.

Bids close.		Noted in issue of
12-23	Electric generator, Winnipeg, Man.	12-15
12-23*	Heating and vent. system, Oklahoma City, Okla.	12- 1
12-24	Street lighting, Boston, Mass.	11-17
12-27	Electrical work, New York, N. Y.	12- 8
12-28	Power-house, Sherbrooke, Que.	12-15
12-28	Elec. Supplies, Washington, D. C.	12-22
12-29	Power plant, Sherbrooke, Que.	12- 1
12-30	Lampposts, Brooklyn, N. Y.	12-22
12-30	Lampposts, New York, N. Y.	12-22
1- 1	Elec. light plant, Kiowa, Okla.	12-22
1- 2*	St. Lighting, Sidney, Ohio. (See proposal advertisements.)	12-22
1- 3	Light plant, Stafford, Kan.	12-22
1- 3	Wiring, New York, N. Y.	12- 8
1- 5	Elevators, New York, N. Y.	12-15
1- 7	Elec. capstan, Portsmouth, N. H.	12- 8
1- 9	Heat and vent., New York, N. Y.	12-22
1-16	Electrical supplies, Bath, Me.	12-15
1-17	Miscel. electrical supplies, Pottstown, Pa.	12-15

Bridges.

Bids close.		Noted in issue of
12-24	Bridge, Stone Harbor, N. J.	12-15
12-24	Bridges, Stockton, Cal.	12-22
12-27	Substructure, Zanesville, Ohio	12-22
12-29	Bridges, Boise, Idaho	12-15
12-29	Bridges, Muskogee, Okla.	12- 8
12-30	Substructure, Portland, Ore.	12- 8
12-30*	Bridge, Peoria, Ill.	12-22
12-30	Bridge, Indianapolis, Ind.	12-22
12-30	Bridge, Peoria, Ill.	12-22
1- 2	Bridge, Mexico, Mo.	12-22
1- 2	Arch, Ashland, Ohio	12-22
1- 3	Bridge, Suisun, Cal.	12-22
1- 3	Trestle, Prince Rupert, B. C.	12-22
1- 3	Bridge, Paso Robles, Cal.	12-22
1- 4	Bridges, Marshalltown, Iowa	12-22
1- 5	Bridges, New Hampton, Iowa	12-22
1- 5	Bridge, Edwardsport, Ind.	11-24
1- 5	Bridge, Rector, Ark.	12-15
1- 7	Bridges, Wessington Springs, S. Dak.	12-22
1- 9	Highway bridges, East St. Louis, Ill.	12- 8
1-10	Bridges, York, Neb.	12-15
1-10	Bridge work, Geneva, Neb.	12-22
2- 1*	Bridge plans, etc., Richmond, Va.	12- 8

Buildings.

Bids close.		Noted in issue of
12-22	Bakery, Baltimore, Md. (Mfg. Pl.)	12-22
12-23*	Heating, etc., Oklahoma City, Okla.	11-24
12-23*	High school, Portland, Ore.	12- 8
12-23	Plant, Athens, Ohio	12- 8
12-24	School, Powell, Ohio	12-22
12-27	Plant, Columbus, O. (Mfg. Pl.)	12-22
12-27	Post-office, Missoula, Mont.	11-24
12-28	Court-house, Brookings, S. Dak.	12- 8
12-28	Public building, Grand Forks, B.C.	12-22
12-28	Building, Houston, Tex.	12-22
12-28	High school, Bellefontaine, Ohio	12-22
12-28	Building impvts., New York	12-22
12-30	Home, Alert Bay, B. C.	12- 1
1- 2	School, Cincinnati, Ohio	12-15
1- 3	School, St. Louis, Ill.	12-15
1- 3	Dormitory, Oxford, Ohio	12- 8
1- 3	University buldg., St. Paul, Minn.	12-22
1- 6	School, Duluth, Minn.	12-22
1- 7	Mchy., Sawtell, Cal., (Mfg. Pl.)	12-22
1- 7	Post-office, Waycross, Ga.	12- 8
1- 9*	Store house, Madison Barracks, N. Y.	12-15
1- 9	City building, E. Youngstown, O.	12-22
1-10	Club building, Portland, Ore.	12-15
1-10	Theatre, Baltimore, Md.	12-15
1-10	Store building, Detroit, Mich.	12-15
1-11	Home, Harrisburg, Pa.	12-15
1-15	Y. M. C. A. building, Burlington, Iowa	12-15
1-16	Court-house, Lake Charles, La.	12-15
1-17	Building, Schuykill Haven, Pa.	12- 8
1-19	Court-house repairs, Brookville, Ind.	12-15
1-21	Oil storage house, Bremerton, Wash.	12- 1
1-24*	Building equipment, Albany, N. Y.	12-22
1-25*	Post-office, Stevens Point, Wis.	12-22

Water-Works.

Bids close.		Noted in issue of
12-23	Water-works, Bladen, Neb.	12-22
12-24	Pumps, Fort Bayard, N. Mex.	12- 8
12-27	Water pipe, Oak Bay, B. C.	12-15
12-27	Wells, engine, Fort Terry, N. Y.	12-15
12-27	Cast-i. water pipe, Victoria, B.C.	12-22
12-28	Water meters, Winnipeg, Man.	12-22
12-29	Water tank, etc., Savannah, Ga.	12-22
12-29	Pipe, castings, Kerrisdale, B. C.	12-22
12-30	Filter plant, Yorkville, S. C.	12-22
1- 1	Water supply, Victoria, B. C.	12-22
1- 1	Water-works, Kiowa, Okla.	12-15
1- 1	Water-works, Corning, Cal.	12- 8
1- 3	Water system, Prince Rupert, B.C.	12-22
1- 3	Water-works, Stafford, Kan.	12-22
1- 3	Reservoir, Spokane, Wash.	12-22
1- 5	Pumping engines, Sparta, Wis.	12-22
1- 9	Water mains, Euclid, Ohio	12-22
1- 9	Water tank, Newton, Iowa	12-22
1-10	Water-works, Onago, Kan.	12-22
1-10	Pump house, etc., Fort Smallwood, Md.	12-22
1-11	Water-works, Angola, N. Y.	12-15
1-16	W.-wks. franchise, Dayton, Ky.	12-22
1-17	Water supply, Schuylkill Haven, Pa.	12-15
1-19	Water-works, filtration plant, Grand Rapids, Mich.	12- 8
2- 1	Water pipe, sewer pipe, Souris, Man.	12- 1

Sewers.

Bids close.		Noted in issue of
12-23	Sewer, Olympia, Wash.	11-24
12-23	Sewer, St. Louis, Mo.	12-22
12-27	Sewer, Akron, Ohio	12-22
12-27	Sewers, Jefferson, Iowa	12-15
12-28	Sewer, Warrenton, Ohio	12-22
12-30	Sewers, Louisville, Ky.	12-15
12-31	Sewers, Cleveland, Ohio	12-15
1- 2	Sewers, Mannington, W. Va.	12-15
1- 2	Sewers, Chehalis, Wash.	12-22
1- 3	Sewers, North Vancouver, B. C.	12-22
1- 3	Sewer, Oroville, Cal.	12-22
1- 3	Sewer, Washington, D. C.	12-22
1- 6	Sewer, Buffalo, Wyo.	11-24
1- 9	Sewer, Aberdeen, S. Dak.	12-22
1-16	Sewer, Cheotah, Okla.	12-22
1-17	Sewage disposal plant, Schuylkill Haven, Pa.	12-22
1-21	Sewers, Fordyce, Ark.	12- 8

Streets and Roads.

Bids close.		Noted in issue of
12-23	Grading, etc., Covington, Ind.	12-15
12-23	Resurfacing, etc., Jacksonville, Fla.	12-22
12-27	Road repairs, Los Angeles, Cal.	12-22
12-27	Curbing, etc., Ravenna, Ohio	12-15
12-28	Curbing, etc., New York, N. Y.	12-15
12-28	Macadamizing, Stockton, Cal.	12-22
12-28	Grading, Lincoln, Neb.	12-22
12-29	Roads, Muncie, Ind.	12-15
12-29	Roads, Bluffton, Ind.	12-15
1- 2	Gravel road, Huntington, Ind.	12-15
1- 2	Gravel road, Williamsport, Ind.	12-15
1- 2	Highway improvement, Bloomington, Ind.	12-22
1- 2	Grading, etc., Delphi, Ind.	12-22
1- 2	Stone roads, Fowler, Ind.	12-22
1- 3	Paving, San Mateo, Cal.	12-22
1- 3	Road impvts., Los Angeles, Cal.	12-22
1- 3	Highway, Martinsville, Ind.	12-22
1- 3	Gravel roads, Washington, Ind.	12-22
1- 3	Road, Madison, Ind.	12-22
1- 3	Roads, Wabash, Ind.	12-22
1- 3	Highway, Beech Grove, Ind.	12-22
1- 3	Roads, Vincennes, Ind.	12-15
1- 3	Grading, etc., Cleveland Heights, Ohio	12-15
1- 3	Paving, Circleville, Ohio	12-15
1- 4	Culverts, Merced, Cal.	12-22
1- 4	Gravel road, Huntington, Ind.	12-22
1- 4	Paving, etc., New York, N. Y.	12-22
1- 5	Road, Laporte, Ind.	12-22
1- 5	Grading, etc., St. Petersburg, Fla.	12-15
1- 9*	Highways, Albany, N. Y. (See proposal advertisements.)	12-22
1-11*	Grading, etc., Salem, N. J. (See proposal advertisements.)	12-22
1-16	Drive impvts., Los Angeles, Cal.	12-22
1-16*	Sidewalks, etc., Paducah, Ky.	12-22

Miscellaneous.

Bids close.		Noted in issue of
12-22	Road roller, New York	12-15
12-23	Snow and ice removal (garbage), New York	12-15
12-23	Road roller, New York	12-15
12-23	Fabricated steel, rivets, Los Angeles, Cal.	11-24
12-23	Jetty work, Wilmington, Del.	12- 8
12-23	Hydrotherapeutic plant, Athens, Ohio.	12- 8
12-23	Galvanized steel sheets, South Africa (Foreign)	12- 8
12-23	Removal of wreck, Jacksonville, Fla.	12-22
12-23	Street sprinkling (garbage), St. Louis, Mo.	12-22
12-24	Boilers, Sacramento, Cal.	12-22
12-24	Ditches, Marshall, Minn.	12-22
12-24	Ditch, Scottsburg, Ind.	12-15
12-26	Fire engine, Redondo, Cal.	12-22
12-27	Wharves, Stockton, Cal.	12-22
12-27	Drain, Port Huron, Mich.	12-22
12-27	Pneumatic drilling machines, brass, etc., Washington, D. C.	12-22
12-27	Traveling crane, Philadelphia, Pa.	12-15
12-27	Removing wreck, Boston, Mass.	12- 8
12-27	Steel rods, lumber, Panama (U. S. Poss.)	12- 8
12-27	Furnaces, etc (garbage) N. Y.	11-24
12-28*	Removing wreck, Wilmington, Del.	12- 1
12-28	Paving Sand, New York, N. Y.	12-15
12-28	Dam, Sherbrooke, Que.	12-22
12-29	Comfort station, New York	12-22
12-29	Road scrapers, Muncie, Ind.	12-22
12-29	Drainage work, Wilmington, N. C.	12-15
12-30	Fire engines, Longbeach, Cal.	12-15
12-30	Garbage crematory (garbage), Fort Omaha, Neb.	12-15
12-30	Snow and ice removal (garbage), New York	12-22
12-30	Launch, Vancouver, B. C.	12-22
12-31	Dredging, San Francisco, Cal.	12-15
1- 2	Roadbed, Sault Ste. Marie, Que (Rys.)	12-15
1- 2	Sea wall, Morehead City, N. C.	12-22
1- 3	Iron stairways, New York	12-22
1- 3	Drain, Butler, Ind.	12-22
1- 3	Buoy depot Prince Rupert, B. C.	12- 1
1- 4	Buoy steamer, Ottawa, Ont.	12- 1
1- 4*	Flatboats, barges, Cincinnati, O.	12- 8
1- 4	Chemical and hose wagon, Jacksonville, Fla.	12-22
1- 4	Extension to breakwater, Margaree Harbor, N. S.	12-22
1- 5	Sluiceway, Burlington, Iowa	12-22
1- 5*	Dredging, etc., Jacksonville, Fla.	12- 8
1- 5	Revetment, Kansas City, Mo.	12- 8
1- 5*	Dredging, New York	12-15
1- 6	Chassis, Seattle, Wash.	12-22
1- 7	Dredging, Hawaii (U. S. Poss)	10-27
1- 9	Tramway plant and equipment, England (Foreign)	11-17
1-10	Furnaces, etc., (garbage), N. Y.	12-22
1-11	Dam, sluiceways, Ottawa, Ont.	12-22
1-11	Air compressor plant, Pittsburg, Pa.	12-22
1-12	Metal vault linings, etc., N. Y.	12-15
1-14	Ditch, Wapakoneta, Ohio	12-15
1-16	Wharf franchise, Martinez, Cal.	12-22
1 -17	Metal superstructures for bridges, Uruguay. (Foreign)	11-17
1-18*	Dredge, etc., Vicksburg, Miss.	12-22
1-20	Ditch, Moorehead, Minn.	12- 8
1-24	Steel rails, Ottawa, Ont.	12-22
1-24	Rebuilding wharves, etc., Philadelphia, Pa.	12-22
2- 6	Torpedo boats, Washington, D. C.	12-15
2- 7*	Dams and canals, Porto Rico, (U. S. Poss.)	12-22
2-22	Steel tramway plates, Australia (Foreign)	12- 8

Examinations.

Examination date.		Noted in issue of
12-17	Assistant in Dairy Bacteriology, and Assistant in Dairy Chemistry, Washington, D. C.	11-17
12-20	Chief Inspector, Boston, Mass.	12- 1
12-28	Industrial teacher, Washington, D. C.	11-10
12-30	Assistant Physiologist in Plant Nutrition, Wash., D. C.	12- 1
1- 4	Chemist in Forest Products, Washington, D. C.	11- 8
1- 4	Mechanical Draftsman, Washington, D. C.	11-17
1- 4	Metallurgical Chemist and Assayer, Washington, D. C.	11-17
1- 4	Physical Laboratory Helper, Washington, D. C.	11-17
1- 4	Mechanical and Chart Draftsman, Washington, D. C.	11-17
1- 4	Mechanical draftsman, Washington, D. C.	12- 8
1- 4	Laboratory Asst. in Chemistry, Washington, D. C.	12- 8
1-18	Ultraviolet Microscope Operator, Washington, D. C.	12- 8
1-18	Assistant Engineer in Forest Products, Wash., D. C.	12-22
2- 8	Assistant Physicist, Wash., D. C.	12-22
2- 8	Assistant Curator, Wash., D. C.	12-22
2- 8	Topographic Aid, Washington, D. C.	12- 8
2- 9	Asst. Geologist, Washington, D. C.	12- 8
2- 9	Junior Topographer, Washington, D. C.	12- 8

of our gas engine or some other and applying direct.

Third, and I am bound to admit a poor third at that, are the inquiries which have originated from the use of a fine toothed comb by me or my salesmen in our personal contact solicitation.

If you haven't checked your business along these lines, do so when you get home. If you have, tell us what percentage of your inquiries really come from the salesmen. You see, we are trying to justify the existence and practice of our personal contact system from the user's standpoint. The user can and should pay handsomely the man who brings a gas engine to his notice, provided of course that the purchase of an engine was good business for him, that it made him money, but if he finds that the salesman did not find him, he may rightly want to know why he should pay a part of the salesman's expense for a service he didn't render.

The second item is that of engineering advice. We perhaps don't hear much about engineering except we get into larger engines. In producer work you hear a lot about it. And yet, my friends, seriously, there is an engineering problem connected with the use and installation of every power plant anywhere and in the adaptation of every gas engine necessary.

In the earlier days of the industry there was great possibility for the salesman to advise but I am afraid he didn't do it, largely because he did not have much engineering knowledge himself. To-day I feel the need for this advice in small engines has largely disappeared. The user can and does furnish most of his engineering talent or he calls on his neighbor who has had experience and can help him out. In large stationary and marine installations there will always be room for good engineering. I hardly want to say that the average salesman for this class of goods is not capable of giving it, yet I think a careful canvass of a considerable number of plants sold and I conclude engineered by salesmen of different concerns, is apt to reveal a woeful lack of even a fair grade of engineering advice.

Now let us review the third condition, the matter of credit. This, to me, is almost a painful subject. If I were going into the banking business I would hang out my shingle and get some of the good things. I would not make the sale of gas engines my means of getting into it. And from the user's standpoint I am ready to say that the man who must have credit in order to purchase a gas engine had really best seek it elsewhere. The rates will be more reasonable. If either the agent, dealer or jobber extends credit, he must get something for interest and risk, and if either of these three hold up the builder he in turn must take something for interest and risk, hence I am forced to conclude that the user is not usually buying wisely when he buys credit through the salesman.

I discuss the fourth item on the list with considerable reluctance. Possibly there are agents, dealers and jobbers who facilitate very greatly the user's purchase of a gas engine but my own experience acting as such did not go to prove it. When the user came to me and wanted 10-HP. engine for stationary work, I did not seem to have it. I had a 10-HP. perhaps, but it was mounted or it was 8 HP. perhaps, but it was mounted or wasn't hopper cooled. In consequence I had to persuade the user that the best thing to do was to order the engine he wanted direct from the factory. Consequently my having purchased in carload lots did not always facilitate business or save him freight.

Again when he came to me for a gear, a spring, a nut or a cotter pin, although I had from $50 to $500 worth of consigned parts in stock, for some reason we were hardly ever able to locate the particular piece for this particular engine. In any event, it seemed that he had to order it from the factory and he had to wait as well as to pay. I really will not undertake to estimate how much this convenience of dealing with the local man is actually worth to the user. I will leave that for you and for him to consider and decide.

The builders of gas engines, so far as I know them personally, are largely not satisfied with present conditions. Contingencies are continually arising and largely through the excessive sale expense in connection with their product, that tends to rob them of the profit item, on which they have figured and to which they are of right entitled.

The users, on the other hand, largely feel that for some reason they are paying too much for their gas engines. At least they can understand that if the cost to them could be reduced and the quality remain the same or be improved, their engine would prove a better investment.

On the other hand, so far as I have been able to judge, we salesmen in all capacities feel that we are not sufficiently well paid for the strenuous effort we put forth.

This is not a wholesome condition, especially if we find that each claim is to a considerable extent justified.

If this is continued, I can only foresee some radical upheaval or change in our industry. It isn't healthy. There is lack of confidence, due largely to lack of knowledge.

The gas engine is needed to-day as never before; the gas engine is better to-day than ever before; its needs will increase, its quality or its merit will increase, users will insist on having a product and there will be builders who will furnish it. And I say to you, gentlemen, if our present sales method is not logical, it must, can and will be changed. And where better than right here in this Association of ours—met for the very purpose as it were—can the matter be agitated and considered, with better hopes for a wise effort toward solution?

The salesman of to-day may be the builder or the user of to-morrow. Our sales problem is as rightly his as it is a problem for the builder and the user. His intelligence and his support are needed in its solution, but of all the things that I think can best be introduced as a means of wise, right solution, that of counseling with the user will bring us greatest success.

Am I right or am I wrong? Would we not be wise to take him into our confidence? Will not co-operation between the user, the builder and the salesman solve and solve fairly, this, our greatest problem, sales? Gentlemen, what, if anything, are we going to do about it?

HIGHWAYS.

Albany, N. Y.

NOTICE TO CONTRACTORS:—STATE OF NEW YORK, Office of the State Commission of Highways, Albany, N. Y.—Pursuant to the provisions of Chapter 30, Laws of 1909, sealed proposals will be received by the undersigned at their office, No. 55 Lancaster St., Albany, N. Y., at one o'clock P. M., on Monday, the 9th day of January, 1911, for the improvement of the following highways:

County.	Highway No.	Name.	Approximate Miles.
Albany	790	Coboes City Line-Boghts Cor	2.17
Albany	879	Shakers-Watervliet	6.40
Broome	858	Whitneys Point-Upper Lisle	4.27
Cattaraugus	695	Otto-Cattaraugus	1.21
Cattaraugus	697	Otto-E. Otto-Section II	2.27
Cayuga	687	Fair Haven-Sterling-Martville	5.30
Chautauqua	873	Brockton-Stockton	2.93
Chenango	666	Plymouth-Kirk	4.90
Clinton	777	Plattsburg-Cadyville	4.33
Columbia	763	Hollowville-Craryville	7.14
Columbia	5072	Livingston-Hudson, Part I	3.60
Columbia	5073	Livingston-Hudson, Part II	5.10
Columbia	5074	Schodack Ctr.-Valatie, Part IV	4.30
Dutchess	712	Amenia-Sharon Sta.	2.29
Franklin	884	Malone-Fort Covington, Part I	3.58
Franklin	885	Moira-South Bombay	8.58
Franklin	5076	Malone-Moira	5.22
Jefferson	625	Theresa-Antwerp, Part 2	5.37
Jefferson	626	Burrs Mills-S. Champion	4.56
Rensselaer	659	Brunswick Ctr.-Lansingburg	5.01
Rensselaer	679	W. Stephentown-Stephentown Center	4.14
Rensselaer	680	Stephentown Center-Massachusetts	3.92
Rensselaer	5084	Schodack Center-Valatie, Part 3	2.90

Alternate proposals will also be received by the undersigned at the time and place above mentioned for State Highways 5072 and 5073 combined in one contract and also alternate proposals for State Highways 5074 and 5084 combined in one contract as follows:

County.	Road No.	Name of Road.	Approximate Length Miles.
Columbia	5072-Ext.	Livingston-Hudson, Parts 1 and 2	8.70
Columbia & Rensselaer.	5074-Ext.	Schodack Ctr.-Valatia, Parts, 3 and 4	7.20

The Commission reserves the right to award contracts for State Roads 5072, 5073, 5074 and 5084 in the manner which shall be deemed most advantageous to the State, namely: either on separate proposals for Roads 5072 and 5073 or on proposals for these two roads combined, and in the same manner on separate proposals for Roads 5074 and 5084 or proposals for these two roads combined.

Sealed proposals will also be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at one o'clock P. M., on Wednesday, the 11th day of January, 1911, for the improvement of the following highways:

County.	Highway No.	Name of Road.	Approximate Miles.
Greene	886	Lexington-Prattsville	4.19
Greene	887	South Cairo-Cairo	3.15
Genesee	5090	East Pembroke-Pembroke, Part II	4.77
Hamilton	974	Nobleboro-Morehouseville	5.00
Lewis	5077	Martinsburg-Turin	3.08
Madison	883	De Ruyter-Otselic, Part I	2.14
Madison	5078	Wampville-Oneida Castle	2.56
Montgomery	409	Fort Plain-Starkville	6.22
Oneida	837	Waterville-Deansboro	4.77
Oneida	838	Saquoit	0.50
Oneida	839	Augusta-Knoxboro	1.21
Oneida	840	North Brookfield-Waterville	4.37
Oneida	877	Clinton Village	0.97
Oneida	5079	Clayville Village	1.44
Onondaga	556	Manlius-Chittenango	3.22
Onondaga	557	Vesper-South Onondaga	6.19
Onondaga	655	Jordan-Cross Lake	1.78
Onondaga	669	Pompey-Jamesville	5.97
Onondaga	5080	Elbridge Village-Camillus, Part I	3.01
Oswego	772	Fulton-Hannibal, Part I	3.67
Oswego	825	Fulton-Oswego	4.51
Oswego	826	Pulaski-Orwell	5.94
Oswego	5082	Mexico-Union Square, Part II	2.92
Oswego	5083	Union Square-Pulaski, Part I	2.61

Sealed proposals will also be received by the undersigned at their office, No. 55 Lancaster Street, Albany, N. Y., at one o'clock P. M., on Friday, the 13th day of January, 1911, for the improvement of the following highways:

County.	Highway No.	Name of Road.	Approximate Miles.
Ontario	639	Cheshire-McJennetts Hill	7.04
Ontario	5081	Lima-East Bloomfield, Part II	5.26
Otsego	833	West Exeter-West Winfield	5.44
St. Lawrence	875	Elmdale-Gouverneur	5.83
St. Lawrence	876	Brasies Corners-Elmdale	3.82
St. Lawrence	878	Ogdensburg-Morristown, Part 1	6.74
Saratoga	741	Saratoga-Corinth	4.06
Saratoga	815	Corinth-Hadley	6.22
Saratoga	5085	Ballston-Ballston Lake, Part II	4.40
Schenectady	793	Schenectady-Vischers Ferry	2.34
Schenectady	880	Schenectady-Duanesburg, Part I	2.79
Schoharie	5086	Gallupville-Vrooman	5.00
Seneca	324	Center Road-Fayette, Part I	3.19
Seneca	5087	Geneva-Waterloo	5.95
Warren	5088	Riverside-Wevertown, Part II	1.53
Washington	802	Smiths Basin-Hartford	5.26
Wayne	5089	Clyde-Savannah, Part I	4.55
Cortland	881	Blodgetts Mills-Cortland	1.79
Cortland	882	Scott-Spafford	2.55
Cortland	5075	Cortland City-Clinton Ave.	0.53

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the Commission in Albany, N. Y., and also at the offices of Division Engineer Spencer J. Stewart, Columbus Hall, Poughkeepsie N. Y., for the road in Dutchess County; at the office of Division Engineer Harry P. Willis, Humane Building, Albany, N. Y., for roads in the counties of Albany, Clinton, Columbia, Greene, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, Warren and Washington; also at the office of Division Engineer Guy H. Miller, Cleveland Building, Watertown, N. Y., for roads in the counties of Franklin, Jefferson, Hamilton, Lewis, Oneida and St. Lawrence; also at the offices of Division Engineer Fred. W. Sarr, South Clinton and West Jefferson Streets, Syracuse, N. Y., for roads in the counties of Cayuga, Chenango, Cortland, Madison, Onondaga, Ontario, Oswego, Seneca and Wayne; also at the office of Division Engineer M. W. Wilbur, 423 Cutler Bldg., Rochester, N. Y., for roads in the counties of Cattaraugus, Chautauqua and Genesee; and also at the office of Division Engineer Paul McLoud, Press Building, Binghamton, for roads in the counties of Broome and Otsego.

The especial attention to bidders is called to "Information for Proposers" on pages 6 and 7 of the specifications.

Proposals for each road must be presented in a separate sealed envelope endorsed on the outside with the name and number of the road for which the proposal is made.

Each proposal must be accompanied by a New York draft or certified check payable to the order of the State Commission of Highways for an amount equal to at least five per cent. of the amount of the proposal which such draft or check accompanies. This draft or check will be held by the Commission until the contract and bond are duly executed.

The successful bidder will be required to give a bond for fifty per cent. of the amount of the contract; such bond to be executed by a Surety Company to be approved by the Commission, or a bond secured by the deposit of collateral securities to be approved by the Commission.

The right is reserved to reject any or all bids.

S. PERCY HOOKER,
Chairman.
T. WARREN ALLEN,
ROBERT EARL,
Commissioners.

ELECTRIC STREET LIGHTING.

Sidney, Ohio.

Bids for a ten (10) year Electric Street Lighting Contract will be received by Director of Public Service. Edd. McVay, Sidney, Ohio, up to twelve o'clock noon, Central Standard Time, on the [illegible] day of January, 1911.

This contract will cover about [illegible] street arc lights, and from 50 to 75 incandescent alley lights.

Sidney, Ohio, is the County seat of Shelby County, with an estimated population of 8,500.

Parties interested in this contract will be informed in detail by communicating with

EDD. McVAY,
Director of Public Service,
Sidney, Ohio.

ROADS.

Salem, N. J., December 2[illegible] 1910.

Sealed proposals will be received by the Road Committee of the Board of Chosen Freeholders of the County of Salem, on Wednesday, January 11, 1911, at 10.30 o'clock A. M., at the Court House, Salem, New Jersey, for grading and placing gravel and oyster shell surface on the Mannington, Pilesgrove and Woodstown road (5.05 miles) in the townships of Mannington and Pilesgrove and the Borough of Woodstown, Salem County, N. J.

Specifications may be obtained and plans and profiles examined at the office of Howard B. Keasbey, Mecum Building, Salem, N. J., and also at the office of the State Commissioner of Public Roads, State House, Trenton, N. J. A certified check in the sum of $1,000, made payable to the order of the Director of the Board of Chosen Freeholders, Salem County, N. J., must accompany each bid as a guarantee that the bidder will enter into a contract should the work be awarded to him.

The right to reject any and all bids is reserved.

HARRY P. GRAY,
Director.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., December 16, 1910.—Sealed proposals will be received in this office until 3 o'clock P. M., on the 25th day of January, 1911, and then opened, for the construction complete (including plumbing, gas piping, heating apparatus, electric conduits and wiring), of the United States Post Office at Stevens Point, Wisconsin, in accordance with drawings and specifications, copies of which may be obtained from the custodian of site at Stevens Point, Wisconsin, or at this office, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect.

For other Proposal Advertisements see pages 51, 52, 53, 54, 56 of Advertisements and Construction News page 308.

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